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U.S. DEPARTMENT OF THE INTERIOR

PROTOTYPE OIL SHALE LEASING PROGRAM

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TRACT C-b

QUARTERLY REPORT #2

(Through February 28, 1975)

Submitted to:

Mr. Peter A. Rutledge
Area Oil Shale Supervisor
Conservation District
U. S. Geological Survey
Grand Junction, Colorado

By:

Ashland Oil, Inc.
Atlantic Richfield Company, Operator
Shell Oil Company
The Oil Shale Corporation

APRIL 14, 1975

SHOUT
SHARE
IT

QUARTERLY REPORT #2

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Aquifer Data - Drill Stem & Multipacker Tests (Cont'd)

MPT Series 2 - SG-17 (Cont'd)

MPT
Series 2
JAN 13

sperry-sun
POST OFFICE BOX 36363 HOUSTON, TEXAS 77036 (713) 494-3021

J. A. Fouché
President

January 22, 1975

Mr. Frederick R. Scheerer
Atlantic-Richfield Company
1500 Security Life Building
Denver, Colorado 80202

Dear Sir:

Enclosed are the originals of our Pressure Gauge Multiple Packer Drill Stem tests, job SPG-11210-KK, performed on your Federal SG-17 Well, Tract C-b, Piceance Creek Basin, Sorghum Gulch, Rio Blanco County, Colorado on January 13, 1975.

Additional data, as well as charts and Field Data Sheets, will be forwarded at a later date.

Distribution is being made according to the attached mailing list.

Thank you for this opportunity to be of service.

Very truly yours,

Hugh L. Cantlon

Hugh L. Cantlon
Pressure Measurement Specialist

HLC:jg
Enclosures

II B-1737

SPERRY-SUN WELL SURVEYING COMPANY

PRESSURE GAUGE DRILL STEM TEST SHEET

Job No. SPG-11210-KK Date 1-13-75 Run MULTIPLE PACKER 2 Office CASPER

Customer ARCO Et al Location PICEANCE CREEK

State COLORADO County/Parish RIO BLANCO

Well FEDERAL S.G. No. 17 Field SORGHUM GULCH TRACT CB

USE MILITARY TIME FOR ALL TIMES

	Time	Date	Time	Date	Time Charged
Arrive: Well/Dock	1. 05:50	1-13-75	2.		
Depart: Well/Dock	1. 02:30	1-14-75	2.		Hrs.
Gauge Start in Hole	1. 08:25	1-13-75	2.		
Gauge Out of Hole	1. 00:42	1-14-75	2.		Hrs.

No. Trips 1 Miles 90 Total Mileage

- -

OUTSIDE Top Gauge # 88 Element # Range 1000 Time Mode 2 min

INSIDE ✓ ✓ # 222 1400 2 ✓

INSIDE ~~Btm.~~ MIDDLE Gauge # 103 Element # Range 1100 Time Mode 2 ✓

INSIDE BTM. ✓ # 123 1100 2 ✓

Type Tool MPT Test Depth See attached Multiple Zero Point GROUND LEVEL

Packer Depth See attached Form MULTIPLE Tail Pipe Depth Top Gauge Depth MULTIPLE

Bottom Hole Temp. 97 Atmos. Temp. -10° F Bottom Gauge Depth MULTIPLE

TIME INFORMATION Set #1	Time	Date 1-13-75 Set #2
On Bottom	0948	
Packer Set	1003	
Initial Open	1006	17:05
Initial Shut-In	10:15	17:07
Start Flow	10:50	1743
Final Shut-In	1443	
Packer Unseated	1449	

PRESSURE INFORMATION

Initial Hydrostatic Mud NA

Initial Draw Down ✓

Initial Build-Up ✓

Final Flow ✓

Final Build-Up ✓

Final Hydrostatic Mud ✓

Mud Weight ✓

TIME OF SURFACE NULLS

Top Gauge INSIDE #222 07:05 OUTSIDE #88 07:12 ______ Bottom Gauge INSIDE #193 06:32 INSIDE #123 06:03 ______

Remarks Used Arco Field Form and copy of same is attached. Completed only Set #1 & Set #3 of this six set series. Arco ordered new larger packers for subsequent run.

SP-423

II B-1738

DON MASON
Operator

PAGE 1 OF

SURFACE TIME RECORD
MULTI-PACKER TEST SERIES #2

SPG-11210-KK

DATE	START TIME	END TIME	DESCRIPTION OF OPERATION DURING TIME
1/13/75	0557	0859	Make up tools, install recorder assemblies and start in hole
1/13/75	0859	0948	Trip in hole to test Depth #1 w/hook @ 1427', Pkrs.
1/13/75	0948	1003	Recording IHP @ Test Depth #1
1/13/75	1003	1005:30	Set test Assembly @ Test Depth #1 PACKER SET @ 1005:30
1/13/75	1005:30	10:10:15	Cycle MFE Valve from closed 1005:30 open 1009:15 — closed
1/13/75	1010:15	—	Pulled Packer loose trying to close
1/13/75	1010:15	1012:15	Reset Packers. Packers set @ 1012:15
1/13/75	1012:15	1014:30	Cycle MFE Valve from open to close at 1014:30
1/13/75	1014:30	1050:05	Recording 30 min. ISIP, to 1045 test depth #1 Valve open @ 1050:05
1/13/75	1050:05	1120	Measuring H2O inflow w/well sounder Reached @
1/13/75	1120	1125	Pull sounder out + prepare for injection
1/13/75	1125	1155	( ) Meter broke at 6GPM 5 6PM Injection period Down Pipe
1/13/75	1155	1210	(166 GAL.) 11.066 GPM 10 GPM Injection period Down Pipe
1/13/75	1210	1225	(294 GAL) 19.6 GPM 20 GPM Injection period Down Pipe

USE 24 HOUR CLOCK TIME AND RECORD ALL TIMES TO NEAREST MINUTE.
WITH SPERRY SUN QUARTZ CLOCK ON LOCATION.

C.E.R. 1-6-75

NATIONAL 42-182 100 SHEETS

NATIONAL 42-182 100 SHEETS

SURFACE TIME RECORD
MULTI-PACKER TEST SERIES # 2

DATE	START TIME	END TIME	DESCRIPTION OF OPERATION DURING TIME
1/13/75	1225	1240	30 GPM Injection Period down Pipe (447 GAL) 29.8 GPM #
1/13/75	1240	1255	40 GPM Injection Period down Pipe (577 GAL)
1/13/75	1255	1310	50 GPM Injection Period down Pipe (731 Gals) 48.7 GPM #
1/13/75	1310	1340	60 GPM Injection Period down Pipe (644 GAL)
1/13/75	1340	1440	Decline From Injection (60 min)
1/13/75	1440	1443	Cycle MFE Valve to closed closed @
1/13/75	1443	1447	[illegible] MFE Valve 2nd time to close closed 1447
1/13/75	1447	1450	Unseat Assembly From Test # 1 Unseat Packers @ 1449
1/13/75	1450	1507	TAking 15 min. FHP at Test 6 Ft about Test depth
1/13/75	1507	1517	Moving Assembly uphole to Test depth #2 and space out at Rig Floor
1/13/75	1517	1532	TAking 15 min. IHP @ Test depth #2 Hook @ 1403', PKR's 1338'-1362'-1386'
1/13/75	1532	1609	Set Assembly @ Test Depth #2 Could not set Hook wall
1/13/75	1609	1643	Move Assembly to Test Depth # 3 And space out at Rig Floor
1/13/75	1643	1658	TAking 15 min. IHP @ Test Depth # 3 Hook @ 1249'; PKR's 1184'-1208'-1232'

USE 24 HOUR CLOCK TIME AND RECORD ALL TIMES TO NEAREST MINUTE.
WITH SPERRY SUN QUARTZ CLOCK ON LOCATION.

C.E.P. 1-6-75

SURFACE TIME RECORD
MULTI-PACKER TEST SERIES # 2

DATE	START TIME	END TIME	DESCRIPTION OF OPERATION DURING TIME
1/13/75	1658	1658:20	Setting Assembly @ Test Depth #3 Packer set 1658:20
1/13/75	1658:20	1705:30	Cycle MFE VALVE from close 1658:20 to open @ 1703:05 2nd open 1705:50
1/13/75	1705:30	1707	Cycle d. From open to close closed @ 1707
1/13/75	1707	1743	Recording 30 min. ISIP to 1737 test depth #3 Value open @
1/13/75	1743	1805	Recovery Test from 1743 to Test Depth 3 Stab 386.9
1/13/75	1805	1820	5 GPM Down DRILL PIPE Period RATE 6 GPM 43 Gal X 2.748 (116.1)
1/13/75	1820	1835	10 GPM Down Drill Pipe 60 Gal x 2.748 165 Gal at 11.0
1/13/75	1835	1850	20 GPM Down Drill Pipe (120 Gal) x 2.748 = 324 Gall = 21.6 GPM
1/13/75	1850	1905-30	30 GPM Down Drill Pipe (138 Gal) x 2.748 = 411.5 Gal = 34.8 GPM
1/13/75	1905-30	1920	40 GPM Down Drill Pipe (226 Gal) x 2.748 = Gal = [illegible]
1/13/75	1920	1926	50 GPM Down Drill Pipe (Gal) X 2.748 = Gal = GPM
1/13/75	1926	1941	Over flow at 50.7 GPM for 15 min 282 Gals
1/13/75	1941	2041	Decline for 60 Min 221.3 to 422.4
1/13/75	2041	2043-45	Pull well sounder

USE 24 HOUR CLOCK TIME AND RECORD ALL TIMES TO NEAREST MINUTE.
WITH SPERRY SUN QUARTZ CLOCK ON LOCATION.

II B-1741 C.E.R. 1-6-75

NATIONAL 42-182 100 SHEETS

SURFACE TIME RECORD
MULTI-PACKER TEST SERIES # 2

DATE	START TIME	END TIME	DESCRIPTION OF OPERATION DURING TIME
1/13/75	2043-45	2044-15	move to Close
1/13/75	2044-15	2050	Close Valve set to cycle Valve
1/13/75	2050	2106	unseat Packer move up 8' for FHP 15 min
1/13/75	2106	2131	move to rig up for next zone End test #3
1/13/75	2131	2146-30	IHP 15 min at test #4 Packers 1147' 1171' 1195'
1/13/75	2146-30	2151-30	setting Hook wall unable to set 5 tries rough trip.
1/13/75	2151	2212-30	move to rig up for test zone #5
1/13/75	2212	2227	IHP for zone #5 packers at 1125' 1147' 1171'
1/13/75	2227	2240	TRY TO set WALL Hanger 5 TRIES Bang it down!
1/13/75	2240	2257	Move up to make up for #6 PACKER 1089' 1113' 1139'
1/13/75	2257	2312	IHP for zone #6 15 MIN
1/13/75	2312	2315	Try to set Wall Hanger for 6 2 TRIES NO Luck
1/13/75	2315		End of Test TRIP out

USE 24 HOUR CLOCK TIME AND RECORD ALL TIMES TO NEAREST MINUTE.
WITH SPERRY SUN QUARTZ CLOCK ON LOCATION.

C.E.R. 1-6-75

NATIONAL 42.182 100 SHEETS Made in U.S.A.

JOB NUMBER SPG-11210-KK	DATE OF JOB JANUARY 13, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

PREPARED FOR

ATLANTIC RICHFIELD COMPANY

WELL NUMBER	FEDERAL SG-17
FIELD/LEASE	SORGHUM GULCH TRACT CB
COUNTY/PARISH	RIO BLANCO
STATE	COLORADO
TYPE OF TEST	MULTIPLE PACKER DST
REFERENCE ELEV	GROUND LEVEL

ADDITIONAL INFORMATION

THESE DATA FROM POSITION NO. 1 OF A SIX INTERVAL SERIES.

THIS TEST FROM GAUGE NO. 88 WITH 1000 LB. ELEMENT PLACED IN ANNULUS AT 1324 FT.

UPPER PACKER SET AT 1362 FT.

INITIAL HYDROSTATIC PRESSURE 371.04 PSI

FINAL HYDROSTATIC PRESSURE 371.81 PSI

THIS GAUGE REFERRED TO AS BEING TOP OUTSIDE.

REFERENCE ELEVATION IS 7036 FT.

136 POINTS REPORTED THIS JOB

```
JOB NUMBER                                                                    DATE OF JOB
SPG-11210-KK                                                             JANUARY 13, 1975

GAUGE/RUN NUMBER                                                              DATE OF RUN
88    MPT NO. 2   INIT.FLOW                                              JANUARY 20, 1975

                                      SPERRY-SUN
                        PRECISION SUBSURFACE PRESSURE GAUGE REPORT

     DELTA    PRESSURE                   TIME      DATE              COMMENTS
     TIME      (PSI)                    HR MIN

     0.000     371.853                  10  06 JAN 13,1975   INITIAL OPEN
```

II B-1744

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                              1 POINTS REPORTED THIS RUN
```

JOB NUMBER
SPG-11210-KK

DATE OF JOB
JANUARY 13, 1975

GAUGE/RUN NUMBER
88 MPT NO.2 SHUT-IN

DATE OF RUN
JANUARY 20, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0.000	371.853	10	15	JAN 13,1975	INITIAL CLOSE
.031	375.171	10	17	JAN 13,1975	
.063	375.802	10	19	JAN 13,1975	
.094	376.129	10	21	JAN 13,1975	
.125	376.386	10	23	JAN 13,1975	
.156	376.596	10	24	JAN 13,1975	
.188	376.736	10	26	JAN 13,1975	
.219	376.806	10	28	JAN 13,1975	
.250	376.946	10	30	JAN 13,1975	
.281	376.993	10	32	JAN 13,1975	
.313	377.040	10	34	JAN 13,1975	
.344	377.110	10	36	JAN 13,1975	
.375	377.133	10	38	JAN 13,1975	
.406	377.157	10	39	JAN 13,1975	
.438	377.227	10	41	JAN 13,1975	
.469	377.227	10	43	JAN 13,1975	
.500	377.250	10	45	JAN 13,1975	END SHUT-IN

17 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11210-KK

DATE OF JOB
JANUARY 13, 1975

GAUGE/RUN NUMBER
88   MPT NO, 2 FINAL FLOW

DATE OF RUN
JANUARY 20, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	TIME MIN	DATE	COMMENTS
0.000	377.250	10	50	JAN 13,1975	FINAL OPEN
.034	377.040	10	52	JAN 13,1975	
.068	377.180	10	54	JAN 13,1975	
.102	372.951	10	56	JAN 13,1975	
.137	370.709	10	58	JAN 13,1975	
.171	372.484	11	00	JAN 13,1975	
.205	373.559	11	02	JAN 13,1975	
.239	374.447	11	04	JAN 13,1975	
.273	375.101	11	06	JAN 13,1975	
.307	375.568	11	08	JAN 13,1975	
.341	376.012	11	10	JAN 13,1975	
.376	376.292	11	13	JAN 13,1975	
.410	376.619	11	15	JAN 13,1975	
.444	376.736	11	17	JAN 13,1975	
.478	376.876	11	19	JAN 13,1975	
.512	376.970	11	21	JAN 13,1975	
.546	377.087	11	23	JAN 13,1975	
.580	377.180	11	25	JAN 13,1975	START INJECT
.614	377.250	11	27	JAN 13,1975	5 GPM IN DP
.649	377.320	11	29	JAN 13,1975	
.683	377.320	11	31	JAN 13,1975	
.717	377.390	11	33	JAN 13,1975	
.751	377.881	11	35	JAN 13,1975	
.785	378.278	11	37	JAN 13,1975	
.819	378.558	11	39	JAN 13,1975	
.853	378.675	11	41	JAN 13,1975	
.888	378.792	11	43	JAN 13,1975	
.922	378.932	11	45	JAN 13,1975	
.956	379.026	11	47	JAN 13,1975	
.990	379.072	11	49	JAN 13,1975	
1.024	379.142	11	51	JAN 13,1975	
1.058	379.236	11	53	JAN 13,1975	
1.092	379.680	11	56	JAN 13,1975	START INJECT
1.127	379.820	11	58	JAN 13,1975	10 GPM IN DP
1.161	379.867	12	00	JAN 13,1975	
1.195	379.913	12	02	JAN 13,1975	
1.229	380.077	12	04	JAN 13,1975	
1.263	380.544	12	06	JAN 13,1975	
1.297	380.848	12	08	JAN 13,1975	
1.331	381.081	12	10	JAN 13,1975	START INJECT

JOB NUMBER
SPG-11210-KK

DATE OF JOB
JANUARY 13, 1975

GAUGE/RUN NUMBER
88 MPT NO. 2 FINAL FLOW

DATE OF RUN
JANUARY 20, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
1.365	381.222	12	12	JAN 13,1975	20 GPM IN DP
1.400	381.385	12	14	JAN 13,1975	
1.434	381.525	12	16	JAN 13,1975	
1.468	381.665	12	18	JAN 13,1975	
1.502	382.366	12	20	JAN 13,1975	
1.536	382.904	12	22	JAN 13,1975	
1.570	383.254	12	24	JAN 13,1975	START INJECT
1.604	383.604	12	26	JAN 13,1975	30 GPM IN DP
1.639	383.838	12	28	JAN 13,1975	
1.673	384.072	12	30	JAN 13,1975	
1.707	384.259	12	32	JAN 13,1975	
1.741	384.492	12	34	JAN 13,1975	
1.775	385.543	12	37	JAN 13,1975	
1.809	386.198	12	39	JAN 13,1975	
1.843	386.758	12	41	JAN 13,1975	START INJECT
1.878	387.296	12	43	JAN 13,1975	40 GPM IN DP
1.912	387.786	12	45	JAN 13,1975	
1.946	387.996	12	47	JAN 13,1975	
1.980	387.973	12	49	JAN 13,1975	
2.014	388.721	12	51	JAN 13,1975	
2.048	389.398	12	53	JAN 13,1975	
2.082	390.006	12	55	JAN 13,1975	START INJECT
2.116	390.403	12	57	JAN 13,1975	50 GPM IN DP
2.151	390.753	12	59	JAN 13,1975	
2.185	390.987	13	01	JAN 13,1975	
2.219	391.407	13	03	JAN 13,1975	
2.253	392.061	13	05	JAN 13,1975	
2.287	392.926	13	07	JAN 13,1975	
2.321	393.557	13	09	JAN 13,1975	START INJECT
2.355	394.187	13	11	JAN 13,1975	60 GPM IN DP
2.390	394.912	13	13	JAN 13,1975	
2.424	395.402	13	15	JAN 13,1975	
2.458	395.893	13	17	JAN 13,1975	
2.492	396.313	13	20	JAN 13,1975	
2.526	397.224	13	22	JAN 13,1975	
2.560	398.252	13	24	JAN 13,1975	
2.594	399.233	13	26	JAN 13,1975	
2.629	400.075	13	28	JAN 13,1975	
2.663	400.892	13	30	JAN 13,1975	
2.697	401.616	13	32	JAN 13,1975	

JOB NUMBER
SPG-11210-KK

DATE OF JOB
JANUARY 13, 1975

GAUGE/RUN NUMBER
88 MPT NO. 2 FINAL FLOW

DATE OF RUN
JANUARY 20, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
2.731	402.294	13	34	JAN 13,1975	
2.765	403.018	13	36	JAN 13,1975	
2.799	403.602	13	38	JAN 13,1975	
2.833	403.999	13	40	JAN 13,1975	END INJECTION
2.868	403.836	13	42	JAN 13,1975	
2.902	403.485	13	44	JAN 13,1975	
2.936	403.205	13	46	JAN 13,1975	
2.970	403.041	13	48	JAN 13,1975	
3.004	402.527	13	50	JAN 13,1975	
3.038	398.766	13	52	JAN 13,1975	
3.072	395.169	13	54	JAN 13,1975	
3.106	392.342	13	56	JAN 13,1975	
3.141	390.122	13	58	JAN 13,1975	
3.175	388.253	14	00	JAN 13,1975	
3.209	386.688	14	03	JAN 13,1975	
3.243	385.357	14	05	JAN 13,1975	
3.277	384.352	14	07	JAN 13,1975	
3.311	383.534	14	09	JAN 13,1975	
3.345	382.787	14	11	JAN 13,1975	
3.380	382.156	14	13	JAN 13,1975	
3.414	381.642	14	15	JAN 13,1975	
3.448	381.222	14	17	JAN 13,1975	
3.482	380.894	14	19	JAN 13,1975	
3.516	380.591	14	21	JAN 13,1975	
3.550	380.334	14	23	JAN 13,1975	
3.584	380.147	14	25	JAN 13,1975	
3.619	379.983	14	27	JAN 13,1975	
3.653	379.843	14	29	JAN 13,1975	
3.687	379.726	14	31	JAN 13,1975	
3.721	379.633	14	33	JAN 13,1975	
3.755	379.540	14	35	JAN 13,1975	
3.789	379.469	14	37	JAN 13,1975	
3.823	379.423	14	39	JAN 13,1975	END DECLINE
3.857	379.353	14	41	JAN 13,1975	
3.892	379.306	14	43	JAN 13,1975	
3.926	379.236	14	46	JAN 13,1975	
3.960	379.236	14	48	JAN 13,1975	VALVE ACTION
3.994	378.745	14	50	JAN 13,1975	END FLOW TEST

118 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11210-KK

DATE OF JOB
JANUARY 13, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

PREPARED FOR

ATLANTIC RICHFIELD COMPANY

WELL NUMBER	FEDERAL SG-17
FIELD/LEASE	SORGHUM GULCH TRACT CB
COUNTY/PARISH	RIO BLANCO
STATE	COLORADO
TYPE OF TEST	MULTIPLE PACKER DST
REFERENCE ELEV	GROUND LEVEL

ADDITIONAL INFORMATION

THESE DATA FROM POSITION NO. 1 OF A SIX INTERVAL SERIES

THIS TEST FROM GAUGE NO. 222 WITH 1400 LB. ELEMENT

THIS GAUGE RUN AT 1374 FT. (BELOW TOP PACKER WHICH WAS AT 1362 FT.) AND ABOVE MIDDLE PACKER SET AT 1386 FT.

INITIAL HYDROSTATIC PRESSURE WAS 395.03 PSI

FINAL HYDROSTATIC PRESSURE WAS 395.46 PSI

THIS GAUGE REFERRED TO AS BEING TOP INSIDE.

REFERENCE ELEVATION IS 7036 FT.

142 POINTS REPORTED THIS JOB

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JOB NUMBER                                                          DATE OF JOB
SPG-11210-KK                                                   JANUARY 13, 1975

GAUGE/RUN NUMBER                                                    DATE OF RUN
222     MPT NO.2  INIT. FLOW                                   JANUARY 20, 1975

                                    SPERRY-SUN
                   PRECISION SUBSURFACE PRESSURE GAUGE REPORT

    DELTA    PRESSURE                      TIME      DATE              COMMENTS
    TIME      (PSI)                       HR MIN

    0.000     393.564                     10  06 JAN 13,1975   INITIAL OPEN
     .033     398.265                     10  08 JAN 13,1975
     .067     398.798                     10  10 JAN 13,1975   END OPEN
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                         3 POINTS REPORTED THIS RUN
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JOB NUMBER
SPG-11210-KK

DATE OF JOB
JANUARY 13, 1975

GAUGE/RUN NUMBER
222 MPT NO.2 SHUT-IN

DATE OF RUN
JANUARY 20, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0.000	398.798	10	15	JAN 13,1975	INITIAL CLOSE
.032	399.065	10	17	JAN 13,1975	
.065	399.365	10	19	JAN 13,1975	
.097	399.498	10	21	JAN 13,1975	
.130	399.665	10	23	JAN 13,1975	
.162	399.832	10	25	JAN 13,1975	
.194	399.865	10	27	JAN 13,1975	
.227	399.965	10	29	JAN 13,1975	
.259	400.065	10	31	JAN 13,1975	
.292	400.132	10	32	JAN 13,1975	
.324	400.199	10	34	JAN 13,1975	
.356	400.098	10	36	JAN 13,1975	
.389	400.299	10	38	JAN 13,1975	
.421	400.265	10	40	JAN 13,1975	
.453	400.165	10	42	JAN 13,1975	
.486	400.332	10	44	JAN 13,1975	
.518	400.232	10	46	JAN 13,1975	
.551	400.332	10	48	JAN 13,1975	
.583	400.365	10	50	JAN 13,1975	END CLOSE

19 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11210-KK

DATE OF JOB
JANUARY 13, 1975

GAUGE/RUN NUMBER
222 MPT NO.2 FINAL FLOW

DATE OF RUN
JANUARY 20, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA	PRESSURE	TIME		DATE	COMMENTS
TIME	(PSI)	HR	MIN		
0.000	400.365	10	50	JAN 13,1975	FINAL OPEN
.033	394.198	10	52	JAN 13,1975	
.067	394.231	10	54	JAN 13,1975	
.100	395.798	10	56	JAN 13,1975	
.134	396.865	10	58	JAN 13,1975	
.167	397.498	11	00	JAN 13,1975	
.201	398.232	11	02	JAN 13,1975	
.234	398.698	11	04	JAN 13,1975	
.268	398.998	11	06	JAN 13,1975	
.301	399.265	11	08	JAN 13,1975	
.335	399.532	11	10	JAN 13,1975	
.368	399.698	11	12	JAN 13,1975	
.402	399.832	11	14	JAN 13,1975	
.435	399.932	11	16	JAN 13,1975	
.469	399.998	11	18	JAN 13,1975	
.502	400.098	11	20	JAN 13,1975	
.536	400.132	11	22	JAN 13,1975	
.569	400.199	11	24	JAN 13,1975	START INJECT
.603	400.299	11	26	JAN 13,1975	5 GPM IN DP
.636	400.365	11	28	JAN 13,1975	
.669	400.899	11	30	JAN 13,1975	
.703	401.232	11	32	JAN 13,1975	
.736	401.532	11	34	JAN 13,1975	
.770	401.599	11	36	JAN 13,1975	
.803	401.632	11	38	JAN 13,1975	
.837	401.732	11	40	JAN 13,1975	
.870	401.899	11	42	JAN 13,1975	
.904	401.899	11	44	JAN 13,1975	
.937	402.032	11	46	JAN 13,1975	
.971	402.132	11	48	JAN 13,1975	
1.004	402.566	11	50	JAN 13,1975	
1.038	402.732	11	52	JAN 13,1975	
1.071	402.732	11	54	JAN 13,1975	START INJECT
1.105	402.766	11	56	JAN 13,1975	10 GPM IN DP
1.138	402.999	11	58	JAN 13,1975	
1.172	403.399	12	00	JAN 13,1975	
1.205	403.699	12	02	JAN 13,1975	
1.239	403.932	12	04	JAN 13,1975	
1.272	404.066	12	06	JAN 13,1975	
1.305	404.199	12	08	JAN 13,1975	

JOB NUMBER
SPG-11210-KK

DATE OF JOB
JANUARY 13, 1975

GAUGE/RUN NUMBER
222 MPT NO.2 FINAL FLOW

DATE OF RUN
JANUARY 20, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	TIME MIN	DATE	COMMENTS
1.339	404.366	12	10	JAN 13,1975	START INJECT
1.372	404.466	12	12	JAN 13,1975	20 GPM IN DP
1.406	405.099	12	14	JAN 13,1975	
1.439	405.666	12	16	JAN 13,1975	
1.473	406.033	12	18	JAN 13,1975	
1.506	406.366	12	20	JAN 13,1975	
1.540	406.566	12	22	JAN 13,1975	
1.573	406.866	12	24	JAN 13,1975	START INJECT
1.607	406.900	12	26	JAN 13,1975	30 GPM IN DP
1.640	407.166	12	28	JAN 13,1975	
1.674	408.066	12	30	JAN 13,1975	
1.707	408.700	12	32	JAN 13,1975	
1.741	409.267	12	34	JAN 13,1975	
1.774	409.800	12	36	JAN 13,1975	
1.808	410.300	12	38	JAN 13,1975	
1.841	410.434	12	40	JAN 13,1975	START INJECT
1.874	410.300	12	42	JAN 13,1975	40 GPM IN DP
1.908	411.234	12	44	JAN 13,1975	
1.941	411.967	12	46	JAN 13,1975	
1.975	412.334	12	48	JAN 13,1975	
2.008	412.701	12	51	JAN 13,1975	
2.042	413.001	12	53	JAN 13,1975	
2.075	413.301	12	55	JAN 13,1975	START INJECT
2.109	413.701	12	57	JAN 13,1975	50 GPM IN DP
2.142	414.334	12	59	JAN 13,1975	
2.176	415.001	13	01	JAN 13,1975	
2.209	416.168	13	03	JAN 13,1975	
2.243	417.068	13	05	JAN 13,1975	
2.276	417.768	13	07	JAN 13,1975	
2.310	418.335	13	09	JAN 13,1975	
2.343	418.668	13	11	JAN 13,1975	START INJECT
2.377	419.235	13	13	JAN 13,1975	60 GPM IN DP
2.410	420.202	13	15	JAN 13,1975	
2.444	421.335	13	17	JAN 13,1975	
2.477	422.035	13	19	JAN 13,1975	
2.510	422.836	13	21	JAN 13,1975	
2.544	423.769	13	23	JAN 13,1975	
2.577	424.503	13	25	JAN 13,1975	
2.611	425.203	13	27	JAN 13,1975	
2.644	425.869	13	29	JAN 13,1975	

JOB NUMBER
SPG-11210-KK

DATE OF JOB
JANUARY 13, 1975

GAUGE/RUN NUMBER
222 MPT NO.2 FINAL FLOW

DATE OF RUN
JANUARY 20, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
2.678	426.470	13	31	JAN 13,1975	
2.711	426.736	13	33	JAN 13,1975	
2.745	426.503	13	35	JAN 13,1975	
2.778	426.103	13	37	JAN 13,1975	
2.812	425.803	13	39	JAN 13,1975	
2.845	425.736	13	41	JAN 13,1975	END INJECTION
2.879	424.503	13	43	JAN 13,1975	
2.912	420.302	13	45	JAN 13,1975	
2.946	416.668	13	47	JAN 13,1975	
2.979	413.834	13	49	JAN 13,1975	
3.013	411.700	13	51	JAN 13,1975	
3.046	409.833	13	53	JAN 13,1975	
3.080	408.300	13	55	JAN 13,1975	
3.113	407.033	13	57	JAN 13,1975	
3.146	406.066	13	59	JAN 13,1975	
3.180	405.299	14	01	JAN 13,1975	
3.213	404.533	14	03	JAN 13,1975	
3.247	403.966	14	05	JAN 13,1975	
3.280	403.532	14	07	JAN 13,1975	
3.314	403.099	14	09	JAN 13,1975	
3.347	402.699	14	11	JAN 13,1975	
3.381	402.532	14	13	JAN 13,1975	
3.414	402.299	14	15	JAN 13,1975	
3.448	402.132	14	17	JAN 13,1975	
3.481	401.932	14	19	JAN 13,1975	
3.515	401.832	14	21	JAN 13,1975	
3.548	401.799	14	23	JAN 13,1975	
3.582	401.765	14	25	JAN 13,1975	
3.615	401.599	14	27	JAN 13,1975	
3.649	401.565	14	29	JAN 13,1975	
3.682	401.632	14	31	JAN 13,1975	
3.716	401.465	14	33	JAN 13,1975	
3.749	401.432	14	35	JAN 13,1975	
3.782	401.465	14	37	JAN 13,1975	
3.816	401.399	14	39	JAN 13,1975	
3.849	401.299	14	41	JAN 13,1975	
3.883	401.299	14	43	JAN 13,1975	
3.916	401.265	14	45	JAN 13,1975	
3.950	401.299	14	47	JAN 13,1975	
3.983	401.299	14	49	JAN 13,1975	END TEST ZONE1

120 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11210-KK

DATE OF JOB
JANUARY 13, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

PREPARED FOR

ATLANTIC RICHFIELD COMPANY

WELL NUMBER	FEDERAL SG-17
FIELD/LEASE	SORGHUM GULCH TRACT CB
COUNTY/PARISH	RIO BLANCO
STATE	COLORADO
TYPE OF TEST	MULTIPLE PACKER DST
REFERENCE ELEV	GROUND LEVEL

ADDITIONAL INFORMATION

THESE DATA FROM POSITION NO. 1 OF A SIX INTERVAL SERIES

THIS TEST FROM GAUGE NO. 193 WITH 1400 LB. ELEMENT

THIS GAUGE RUN AT 1399 FT. (BELOW MIDDLE PACKER WHICH WAS AT 1386 FT.) AND ABOVE BOTTOM PACKER WHICH WAS AT 1410 FT. FOR THIS TEST.

INITIAL HYDROSTATIC WAS 403.64 PSI

FINAL HYDROSTATIC WAS 404.28 PSI

THIS GAUGE REFERRED TO AS BEING MIDDLE INSIDE.

REFERENCE ELEVATION IS 7036 FT.

142 POINTS REPORTED THIS JOB

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JOB NUMBER                                                                DATE OF JOB
SPG-11210-KK                                                       JANUARY 13, 1975

GAUGE/RUN NUMBER                                                          DATE OF RUN
193     MPT NO.2   INIT.FLOW                                       JANUARY 20, 1975

                                      SPERRY-SUN
                     PRECISION SUBSURFACE PRESSURE GAUGE REPORT

    DELTA   PRESSURE                          TIME     DATE              COMMENTS
    TIME     (PSI)                           HR MIN

    0.000    409.166                          10   06 JAN 13,1975    INITIAL OPEN
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                             1 POINTS REPORTED THIS RUN
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JOB NUMBER
SPG-11210-KK

DATE OF JOB
JANUARY 13, 1975

GAUGE/RUN NUMBER
193 MPT NO.2 SHUT-IN

DATE OF RUN
JANUARY 20, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	TIME MIN	DATE	COMMENTS
0.000	409.166	10	15	JAN 13,1975	INITIAL CLOSE
.026	406.358	10	17	JAN 13,1975	
.053	406.674	10	18	JAN 13,1975	
.079	407.052	10	20	JAN 13,1975	
.105	407.210	10	21	JAN 13,1975	
.132	407.431	10	23	JAN 13,1975	
.158	407.589	10	24	JAN 13,1975	
.184	407.652	10	26	JAN 13,1975	
.211	407.778	10	28	JAN 13,1975	
.237	407.841	10	29	JAN 13,1975	
.263	407.967	10	31	JAN 13,1975	
.289	408.031	10	32	JAN 13,1975	
.316	408.094	10	34	JAN 13,1975	
.342	408.062	10	36	JAN 13,1975	
.368	408.125	10	37	JAN 13,1975	
.395	408.251	10	39	JAN 13,1975	
.421	408.251	10	40	JAN 13,1975	
.447	408.220	10	42	JAN 13,1975	
.474	408.315	10	43	JAN 13,1975	
.500	408.409	10	45	JAN 13,1975	END SHUT-IN

20 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11210-KK

DATE OF JOB
JANUARY 13, 1975

GAUGE/RUN NUMBER
193 MPT NO,2 FINAL FLOW

DATE OF RUN
JANUARY 20, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0,000	408,409	10	50	JAN 13,1975	FINAL OPEN
,033	404,465	10	52	JAN 13,1975	
,066	402,067	10	54	JAN 13,1975	
,100	403,045	10	56	JAN 13,1975	
,133	404,213	10	58	JAN 13,1975	
,166	405,096	11	00	JAN 13,1975	
,199	405,790	11	02	JAN 13,1975	
,232	406,201	11	04	JAN 13,1975	
,266	406,674	11	06	JAN 13,1975	
,299	407,052	11	08	JAN 13,1975	
,332	407,273	11	10	JAN 13,1975	
,365	407,526	11	12	JAN 13,1975	
,398	407,778	11	14	JAN 13,1975	
,432	407,841	11	16	JAN 13,1975	
,465	407,999	11	18	JAN 13,1975	
,498	408,031	11	20	JAN 13,1975	
,531	408,094	11	22	JAN 13,1975	
,564	408.220	11	24	JAN 13,1975	
,597	408,283	11	26	JAN 13,1975	START INJECT
,631	408.378	11	28	JAN 13,1975	5 GPM IN DP
,664	408,819	11	30	JAN 13,1975	
,697	409.198	11	32	JAN 13,1975	
,730	409,482	11	34	JAN 13,1975	
,763	409,671	11	36	JAN 13,1975	
,797	409,797	11	38	JAN 13,1975	
,830	409,924	11	40	JAN 13,1975	
,863	409.924	11	42	JAN 13,1975	
,896	409,987	11	44	JAN 13,1975	
,929	410,081	11	46	JAN 13,1975	
,963	410,239	11	48	JAN 13,1975	
,996	410,618	11	50	JAN 13,1975	
1,029	410,807	11	52	JAN 13,1975	
1,062	410,902	11	54	JAN 13,1975	
1,095	411,028	11	56	JAN 13,1975	START INJECT
1,129	411,186	11	58	JAN 13,1975	10 GPM IN DP
1.162	411,596	12	00	JAN 13,1975	
1,195	411,975	12	02	JAN 13,1975	
1,228	412,259	12	04	JAN 13,1975	
1,261	412,479	12	06	JAN 13,1975	
1,295	412,606	12	08	JAN 13,1975	

JOB NUMBER
SPG-11210-KK

DATE OF JOB
JANUARY 13, 1975

GAUGE/RUN NUMBER
193 MPT NO.2 FINAL FLOW

DATE OF RUN
JANUARY 20, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
1,328	412,763	12	10	JAN 13,1975	START INJECT
1,361	412,890	12	12	JAN 13,1975	20 GPM IN DP
1,394	413,426	12	14	JAN 13,1975	
1,427	413,868	12	16	JAN 13,1975	
1,461	414,373	12	18	JAN 13,1975	
1.494	414,656	12	20	JAN 13,1975	
1,527	415,004	12	22	JAN 13,1975	
1,560	415,256	12	24	JAN 13,1975	
1,593	415,382	12	26	JAN 13,1975	START INJECT
1,627	415,603	12	28	JAN 13,1975	30 GPM IN DP
1,660	416,329	12	30	JAN 13,1975	
1,693	417,054	12	32	JAN 13,1975	
1,726	417,717	12	34	JAN 13,1975	
1,759	418,222	12	36	JAN 13,1975	
1,792	418,632	12	38	JAN 13,1975	
1.826	418.979	12	40	JAN 13,1975	START INJECT
1,859	419,042	12	42	JAN 13,1975	40 GPM IN DP
1,892	419,642	12	44	JAN 13,1975	
1,925	420,241	12	46	JAN 13,1975	
1,958	420,778	12	48	JAN 13,1975	
1,992	421,282	12	49	JAN 13,1975	
2,025	421,630	12	51	JAN 13,1975	
2.058	421.819	12	53	JAN 13,1975	
2.091	422,387	12	55	JAN 13,1975	START INJECT
2,124	423,081	12	57	JAN 13,1975	50 GPM IN DP
2,158	423,807	12	59	JAN 13,1975	
2,191	424,248	13	01	JAN 13.1975	
2,224	424,974	13	03	JAN 13,1975	
2.257	425,637	13	05	JAN 13,1975	
2,290	426,078	13	07	JAN 13,1975	
2,324	426,489	13	09	JAN 13,1975	START INJECT
2,357	426,962	13	11	JAN 13,1975	60 GPM IN DP
2,390	427,751	13	13	JAN 13,1975	
2,423	428,697	13	15	JAN 13,1975	
2,456	429.549	13	17	JAN 13,1975	
2.490	430,401	13	19	JAN 13,1975	
2.523	431.158	13	21	JAN 13,1975	
2,556	431,789	13	23	JAN 13,1975	
2,589	432,799	13	25	JAN 13,1975	
2,622	433,556	13	27	JAN 13,1975	

JOB NUMBER
SPG-11210-KK

DATE OF JOB
JANUARY 13, 1975

GAUGE/RUN NUMBER
193 MPT NO.2 FINAL FLOW

DATE OF RUN
JANUARY 20, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME		DATE	COMMENTS
		HR	MIN		
2.656	434.156	13	29	JAN 13,1975	
2.689	434.597	13	31	JAN 13,1975	
2.722	434.471	13	33	JAN 13,1975	
2.755	434.124	13	35	JAN 13,1975	
2.788	433.935	13	37	JAN 13,1975	
2.821	433.777	13	39	JAN 13,1975	END INJECTION
2.855	433.462	13	41	JAN 13,1975	
2.888	429.896	13	43	JAN 13,1975	
2.921	426.015	13	45	JAN 13,1975	
2.954	423.302	13	47	JAN 13,1975	
2.987	420.998	13	49	JAN 13,1975	
3.021	419.263	13	51	JAN 13,1975	
3.054	417.686	13	53	JAN 13,1975	
3.087	416.392	13	55	JAN 13,1975	
3.120	415.319	13	57	JAN 13,1975	
3.153	414.530	13	59	JAN 13,1975	
3.187	413.647	14	01	JAN 13,1975	
3.220	413.205	14	03	JAN 13,1975	
3.253	412.763	14	05	JAN 13,1975	
3.286	412.353	14	07	JAN 13,1975	
3.319	411.407	14	09	JAN 13,1975	
3.353	411.407	14	11	JAN 13,1975	
3.386	411.123	14	13	JAN 13,1975	
3.419	411.123	14	15	JAN 13,1975	
3.452	411.060	14	17	JAN 13,1975	
3.485	410.965	14	19	JAN 13,1975	
3.519	410.870	14	21	JAN 13,1975	
3.552	410.712	14	23	JAN 13,1975	
3.585	410.586	14	25	JAN 13,1975	
3.618	410.618	14	27	JAN 13,1975	
3.651	410.397	14	29	JAN 13,1975	
3.685	410.555	14	31	JAN 13,1975	
3.718	410.555	14	33	JAN 13,1975	
3.751	410.649	14	35	JAN 13,1975	
3.784	410.397	14	37	JAN 13,1975	
3.817	410.239	14	39	JAN 13,1975	END DECLINE
3.851	410.397	14	41	JAN 13,1975	VALVE ACTION
3.884	409.545	14	43	JAN 13,1975	
3.917	409.766	14	45	JAN 13,1975	
3.950	409.734	14	47	JAN 13,1975	

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JOB NUMBER                                                    DATE OF JOB
SPG-11210-KK                                            JANUARY 13, 1975

GAUGE/RUN NUMBER                                              DATE OF RUN
193    MPT NO,2   FINAL FLOW                            JANUARY 20, 1975

                              SPERRY-SUN
                PRECISION SUBSURFACE PRESSURE GAUGE REPORT

   DELTA   PRESSURE                       TIME     DATE              COMMENTS
   TIME     (PSI)                        HR MIN

   3,983    409,829                      14  49 JAN 13,1975   END OF FLOW
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                         121 POINTS REPORTED THIS RUN
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JOB NUMBER
SPG-11210-KK

DATE OF JOB
JANUARY 13, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

PREPARED FOR

ATLANTIC RICHFIELD COMPANY

WELL NUMBER	FEDERAL SG-17
FIELD/LEASE	SORGHUM GULCH TRACT CB
COUNTY/PARISH	RIO BLANCO
STATE	COLORADO
TYPE OF TEST	MULTIPLE PACKER DST
REFERENCE ELEV	GROUND LEVEL

ADDITIONAL INFORMATION

THESE DATA FROM POSITION NO. 1 OF A SIX INTERVAL SERIES

THIS TEST FROM GAUGE NO. 123 WITH 1100 LB. ELEMENT

THIS GAUGE RUN AT 1423 FT. (BELOW BOTTOM PACKER WHICH WAS AT 1410 FT.)

TOTAL DEPTH OF HOLE WAS 2460 FT.

INITIAL HYDROSTATIC WAS 415.18 PSI

FINAL HYDROSTATIC WAS 415.52 PSI

THIS GAUGE REFERRED TO AS BEING BOTTOM INSIDE

REFERENCE ELEVATION IS 7036 FT.

142 POINTS REPORTED THIS JOB

JOB NUMBER
SPG-11210-KK

DATE OF JOB
JANUARY 13, 1975

GAUGE/RUN NUMBER
123   MPT NO.2 INIT. FLOW

DATE OF RUN
JANUARY 20, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0.000	416.167	10	06	JAN 13,1975	INITIAL OPEN
.033	418.012	10	08	JAN 13,1975	
.067	418.480	10	10	JAN 13,1975	END OPEN

3 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11210-KK

DATE OF JOB
JANUARY 13, 1975

GAUGE/RUN NUMBER
123 MPT NO.2 SHUT-IN

DATE OF RUN
JANUARY 20, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0.000	418.480	10	15	JAN 13,1975	INITIAL CLOSE
.034	418.870	10	17	JAN 13,1975	
.069	419.234	10	19	JAN 13,1975	
.103	419.312	10	21	JAN 13,1975	
.137	419.467	10	23	JAN 13,1975	
.172	419.675	10	25	JAN 13,1975	
.206	419.649	10	27	JAN 13,1975	
.240	419.727	10	29	JAN 13,1975	
.275	419.727	10	31	JAN 13,1975	
.309	419.831	10	34	JAN 13,1975	
.343	419.883	10	36	JAN 13,1975	
.377	420.013	10	38	JAN 13,1975	
.412	419.909	10	40	JAN 13,1975	
.446	419.935	10	42	JAN 13,1975	
.480	419.987	10	44	JAN 13,1975	
.515	420.065	10	46	JAN 13,1975	
.549	420.013	10	48	JAN 13,1975	
.583	420.065	10	50	JAN 13,1975	END CLOSE

18 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11210-KK

DATE OF JOB
JANUARY 13, 1975

GAUGE/RUN NUMBER
123 MPT NO.2 FINAL FLOW

DATE OF RUN
J

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	TIME MIN	DATE	COMMENTS
0.000	420.065	10	50	JAN 13,1975	FINAL OPEN
.033	416.972	10	52	JAN 13,1975	
.066	413.178	10	54	JAN 13,1975	
.100	414.841	10	56	JAN 13,1975	
.133	415.959	10	58	JAN 13,1975	
.166	416.972	11	00	JAN 13,1975	
.199	417.700	11	02	JAN 13,1975	
.232	418.142	11	04	JAN 13,1975	
.266	418.532	11	06	JAN 13,1975	
.299	418.896	11	08	JAN 13,1975	
.332	419.104	11	10	JAN 13,1975	
.365	419.312	11	12	JAN 13,1975	
.398	419.467	11	14	JAN 13,1975	
.432	419.597	11	16	JAN 13,1975	
.465	419.675	11	18	JAN 13,1975	
.498	419.779	11	20	JAN 13,1975	
.531	419.831	11	22	JAN 13,1975	
.564	419.909	11	24	JAN 13,1975	
.597	419.987	11	26	JAN 13,1975	START INJECT
.631	420.039	11	28	JAN 13,1975	5 GPM IN DP
.664	420.377	11	30	JAN 13,1975	
.697	420.845	11	32	JAN 13,1975	
.730	421.157	11	34	JAN 13,1975	
.763	421.287	11	36	JAN 13,1975	
.797	421.391	11	38	JAN 13,1975	
.830	421.521	11	40	JAN 13,1975	
.863	421.599	11	42	JAN 13,1975	
.896	421.729	11	44	JAN 13,1975	
.929	421.781	11	46	JAN 13,1975	
.963	421.807	11	48	JAN 13,1975	
.996	422.118	11	50	JAN 13,1975	
1.029	422.404	11	52	JAN 13,1975	
1.062	422.430	11	54	JAN 13,1975	
1.095	422.534	11	56	JAN 13,1975	START INJECT
1.129	422.664	11	58	JAN 13,1975	10 GPM IN DP
1.162	423.080	12	00	JAN 13,1975	
1.195	423.392	12	02	JAN 13,1975	
1.228	423.652	12	04	JAN 13,1975	
1.261	423.808	12	06	JAN 13,1975	
1.295	423.964	12	08	JAN 13,1975	

JOB NUMBER
SPG-11210-KK

DATE OF JOB
JANUARY 13, 1975

GAUGE/RUN NUMBER
123 MPT NO.2 FINAL FLOW

DATE OF RUN
J

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME		DATE	COMMENTS
		HR	MIN		
1.328	424.068	12	10	JAN 13,1975	START INJECT
1.361	424.198	12	12	JAN 13,1975	20 GPM IN DP
1.394	424.795	12	14	JAN 13,1975	
1.427	425.289	12	16	JAN 13,1975	
1.461	425.705	12	18	JAN 13,1975	
1.494	426.043	12	20	JAN 13,1975	
1.527	426.303	12	22	JAN 13,1975	
1.560	426.511	12	24	JAN 13,1975	
1.593	426.641	12	26	JAN 13,1975	START INJECT
1.627	426.849	12	28	JAN 13,1975	30 GPM IN DP
1.660	427.654	12	30	JAN 13,1975	
1.693	428.356	12	32	JAN 13,1975	
1.726	428.928	12	34	JAN 13,1975	
1.759	429.474	12	36	JAN 13,1975	
1.792	430.019	12	38	JAN 13,1975	
1.826	430.279	12	40	JAN 13,1975	START INJECT
1.859	430.279	12	42	JAN 13,1975	40 GPM IN DP
1.892	430.825	12	44	JAN 13,1975	
1.925	431.553	12	46	JAN 13,1975	
1.958	432.021	12	48	JAN 13,1975	
1.992	432.488	12	49	JAN 13,1975	
2.025	432.748	12	51	JAN 13,1975	
2.058	433.008	12	53	JAN 13,1975	
2.091	433.372	12	55	JAN 13,1975	START INJECT
2.124	433.970	12	57	JAN 13,1975	50 GPM IN DP
2.158	434.646	12	59	JAN 13,1975	
2.191	435.243	13	01	JAN 13,1975	
2.224	435.841	13	03	JAN 13,1975	
2.257	436.543	13	05	JAN 13,1975	
2.290	436.959	13	07	JAN 13,1975	
2.324	437.375	13	09	JAN 13,1975	START INJECT
2.357	437.738	13	11	JAN 13,1975	60 GPM IN DP
2.390	438.700	13	13	JAN 13,1975	
2.423	439.740	13	15	JAN 13,1975	
2.456	440.649	13	17	JAN 13,1975	
2.490	441.455	13	19	JAN 13,1975	
2.523	442.313	13	21	JAN 13,1975	
2.556	443.014	13	23	JAN 13,1975	
2.589	443.768	13	25	JAN 13,1975	
2.622	444.522	13	27	JAN 13,1975	

JOB NUMBER
SPG-11210-KK

DATE OF JOB
JANUARY 13, 1975

GAUGE/RUN NUMBER
123 MPT NO.2 FINAL FLOW

DATE OF RUN
J

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
2.656	445.068	13	29	JAN 13,1975	
2.689	445.483	13	31	JAN 13,1975	
2.722	445.354	13	33	JAN 13,1975	
2.755	445.016	13	35	JAN 13,1975	
2.788	444.730	13	37	JAN 13,1975	
2.821	444.548	13	39	JAN 13,1975	END INJECTION
2.855	444.236	13	41	JAN 13,1975	
2.888	440.701	13	43	JAN 13,1975	
2.921	436.803	13	45	JAN 13,1975	
2.954	433.788	13	47	JAN 13,1975	
2.987	431.527	13	49	JAN 13,1975	
3.021	429.604	13	51	JAN 13,1975	
3.054	427.992	13	53	JAN 13,1975	
3.087	426.693	13	55	JAN 13,1975	
3.120	425.627	13	57	JAN 13,1975	
3.153	424.769	13	59	JAN 13,1975	
3.187	423.990	14	01	JAN 13,1975	
3.220	423.470	14	03	JAN 13,1975	
3.253	422.898	14	05	JAN 13,1975	
3.286	422.508	14	07	JAN 13,1975	
3.319	422.196	14	09	JAN 13,1975	
3.353	421.911	14	11	JAN 13,1975	
3.386	421.677	14	13	JAN 13,1975	
3.419	421.469	14	15	JAN 13,1975	
3.452	421.313	14	17	JAN 13,1975	
3.485	421.183	14	19	JAN 13,1975	
3.519	421.079	14	21	JAN 13,1975	
3.552	420.975	14	23	JAN 13,1975	
3.585	420.897	14	25	JAN 13,1975	
3.618	420.871	14	27	JAN 13,1975	
3.651	420.793	14	29	JAN 13,1975	
3.685	420.767	14	31	JAN 13,1975	
3.718	420.715	14	33	JAN 13,1975	
3.751	420.689	14	35	JAN 13,1975	
3.784	420.663	14	37	JAN 13,1975	
3.817	420.637	14	39	JAN 13,1975	END DECLINE
3.851	420.611	14	41	JAN 13,1975	
3.884	420.663	14	43	JAN 13,1975	
3.917	420.637	14	45	JAN 13,1975	
3.950	420.663	14	47	JAN 13,1975	

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JOB NUMBER                                                           DATE OF JOB
SPG-11210-KK                                                    JANUARY 13, 1975

GAUGE/RUN NUMBER                                                     DATE OF RUN
123    MPT NO,2  FINAL FLOW                                                    J

                                  SPERRY-SUN
                    PRECISION SUBSURFACE PRESSURE GAUGE REPORT

    DELTA   PRESSURE                    TIME     DATE              COMMENTS
    TIME     (PSI)                     HR MIN

    3,983    420,741                    14  49 JAN 13,1975   END TEST ZONE1
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                       121 POINTS REPORTED THIS RUN
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JOB NUMBER
SPG-11210-KK

DATE OF JOB
JANUARY 13, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

PREPARED FOR

ATLANTIC RICHFIELD COMPANY

WELL NUMBER	FEDERAL SG-17
FIELD/LEASE	SORGHUM GULCH TRACT CB
COUNTY/PARISH	RIO BLANCO
STATE	COLORADO
TYPE OF TEST	MULTIPLE PACKER DST
REFERENCE ELEV	GROUND LEVEL

ADDITIONAL INFORMATION

THESE DATA FROM POSITION NO. 3 OF A SIX INTERVAL SERIES.

THIS TEST FROM GAUGE NO. 123 WITH 1100 LB. ELEMENT.

THIS GAUGE RUN AT 1245 FT. (BELOW BOTTOM PACKER WHICH WAS SET AT 1232 FT.)

TOTAL DEPTH OF HOLE WAS 2460 FT.

INITIAL HYDROSTATIC WAS 341.24 PSI

FINAL HYDROSTATIC WAS 337.70 PSI

THIS GAUGE REFERRED TO AS BEING BOTTOM INSIDE

REFERENCE ELEVATION IS 7036 FT.

112 POINTS REPORTED THIS JOB

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JOB NUMBER                                                          DATE OF JOB
SPG-11210-KK                                                   JANUARY 13, 1975

GAUGE/RUN NUMBER                                                    DATE OF RUN
123    MPT NO.2  INIT.FLOW                                     JANUARY 20, 1975

                               SPERRY-SUN
                 PRECISION SUBSURFACE PRESSURE GAUGE REPORT

    DELTA   PRESSURE                    TIME     DATE               COMMENTS
    TIME     (PSI)                     HR MIN

    0.000    337.209                   17  05 JAN 13,1975    INITIAL OPEN
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                        1 POINTS REPORTED THIS RUN
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JOB NUMBER
SPG-11210-KK

DATE OF JOB
JANUARY 13, 1975

GAUGE/RUN NUMBER
123 MPT NO,2 SHUT-IN

DATE OF RUN
JANUARY 20, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0,000	337,209	17	07	JAN 13,1975	INITIAL CLOSE
,033	337,573	17	09	JAN 13,1975	
,067	337,937	17	11	JAN 13,1975	
,100	336,715	17	13	JAN 13,1975	
,133	335,806	17	15	JAN 13,1975	
,167	335,182	17	17	JAN 13,1975	
,200	334,636	17	19	JAN 13,1975	
,233	334,220	17	21	JAN 13,1975	
,267	333,908	17	23	JAN 13,1975	
,300	333,570	17	25	JAN 13,1975	
,333	333,363	17	27	JAN 13,1975	
,367	332,999	17	29	JAN 13,1975	
,400	332,869	17	31	JAN 13,1975	
,433	332,713	17	33	JAN 13,1975	
,467	332,557	17	35	JAN 13,1975	
,500	332.531	17	37	JAN 13,1975	
.533	335,572	17	39	JAN 13,1975	
,567	333,908	17	41	JAN 13,1975	
,600	333,440	17	43	JAN 13,1975	END CLOSE

19 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11210-KK

DATE OF JOB
JANUARY 13, 1975

GAUGE/RUN NUMBER
123 MPT NO.2 FINAL FLOW

DATE OF RUN
JANUARY 20, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0.000	333.440	17	43	JAN 13,1975	FINAL OPEN
.033	333.103	17	45	JAN 13,1975	
.066	332.843	17	47	JAN 13,1975	
.099	332.609	17	49	JAN 13,1975	
.133	332.479	17	51	JAN 13,1975	
.166	332.349	17	53	JAN 13,1975	
.199	332.245	17	55	JAN 13,1975	
.232	332.141	17	57	JAN 13,1975	
.265	332.089	17	59	JAN 13,1975	
.298	332.037	18	01	JAN 13,1975	
.332	331.985	18	03	JAN 13,1975	
.365	331.933	18	05	JAN 13,1975	START DOWN DP
.398	331.881	18	07	JAN 13,1975	WITH 5 GPM
.431	331.881	18	09	JAN 13,1975	
.464	331.829	18	11	JAN 13,1975	
.497	331.829	18	13	JAN 13,1975	
.530	331.777	18	15	JAN 13,1975	
.564	331.777	18	17	JAN 13,1975	
.597	331.777	18	19	JAN 13,1975	
.630	331.725	18	21	JAN 13,1975	START DOWN DP
.663	331.725	18	23	JAN 13,1975	WITH 10 GPM
.696	331.725	18	25	JAN 13,1975	
.729	331.725	18	27	JAN 13,1975	
.762	331.725	18	29	JAN 13,1975	
.796	331.699	18	31	JAN 13,1975	
.829	331.647	18	33	JAN 13,1975	
.862	331.699	18	35	JAN 13,1975	START DOWN DP
.895	331.673	18	37	JAN 13,1975	WITH 20 GPM
.928	331.673	18	39	JAN 13,1975	
.961	331.673	18	41	JAN 13,1975	
.994	331.673	18	43	JAN 13,1975	
1.028	331.647	18	45	JAN 13,1975	
1.061	331.673	18	47	JAN 13,1975	
1.094	331.673	18	49	JAN 13,1975	
1.127	331.725	18	51	JAN 13,1975	START DOWN DP
1.160	331.699	18	53	JAN 13,1975	WITH 30 GPM
1.193	331.699	18	55	JAN 13,1975	
1.227	331.699	18	57	JAN 13,1975	
1.260	331.699	18	59	JAN 13,1975	
1.293	331.673	19	01	JAN 13,1975	

JOB NUMBER
SPG-11210-KK

DATE OF JOB
JANUARY 13, 1975

GAUGE/RUN NUMBER
123 MPT NO.2 FINAL FLOW

DATE OF RUN
JANUARY 20, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA	PRESSURE	TIME		DATE	COMMENTS
TIME	(PSI)	HR	MIN		
1.326	331.673	19	03	JAN 13,1975	
1.359	331.673	19	05	JAN 13,1975	
1.392	331.673	19	07	JAN 13,1975	START DOWN DP
1.425	331.673	19	09	JAN 13,1975	WITH 40 GPM
1.459	331.673	19	11	JAN 13,1975	
1.492	331.699	19	13	JAN 13,1975	
1.525	331.699	19	14	JAN 13,1975	
1.558	331.699	19	16	JAN 13,1975	
1.591	331.699	19	18	JAN 13,1975	
1.624	331.725	19	20	JAN 13,1975	START DOWN DP
1.657	331.725	19	22	JAN 13,1975	WITH 60 GPM
1.691	331.725	19	24	JAN 13,1975	
1.724	331.673	19	26	JAN 13,1975	
1.757	331.725	19	28	JAN 13,1975	
1.790	331.725	19	30	JAN 13,1975	
1.823	331.725	19	32	JAN 13,1975	
1.856	331.673	19	34	JAN 13,1975	
1.890	331.725	19	36	JAN 13,1975	
1.923	331.725	19	38	JAN 13,1975	
1.956	331.751	19	40	JAN 13,1975	START DECLINE
1.989	331.725	19	42	JAN 13,1975	
2.022	331.725	19	44	JAN 13,1975	
2.055	331.725	19	46	JAN 13,1975	
2.088	331.725	19	48	JAN 13,1975	
2.122	331.725	19	50	JAN 13.1975	
2.155	331.725	19	52	JAN 13,1975	
2.188	331.725	19	54	JAN 13,1975	
2.221	331.725	19	56	JAN 13,1975	
2.254	331.725	19	58	JAN 13,1975	
2.287	331.751	20	00	JAN 13,1975	
2.320	331.725	20	02	JAN 13,1975	
2.354	331.725	20	04	JAN 13,1975	
2.387	331.725	20	06	JAN 13,1975	
2.420	331.751	20	08	JAN 13,1975	
2.453	331.777	20	10	JAN 13,1975	
2.486	331.777	20	12	JAN 13,1975	
2.519	331.751	20	14	JAN 13,1975	
2.553	331.751	20	16	JAN 13,1975	
2.586	331.751	20	18	JAN 13,1975	
2.619	331.777	20	20	JAN 13,1975	

JOB NUMBER
SPG-11210-KK

DATE OF JOB
JANUARY 13, 1975

GAUGE/RUN NUMBER
123 MPT NO,2 FINAL FLOW

DATE OF RUN
JANUARY 20, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME		DATE	COMMENTS
		HR	MIN		
2,652	331,777	20	22	JAN 13,1975	
2,685	331,777	20	24	JAN 13,1975	
2,718	331,777	20	26	JAN 13,1975	
2,751	331,777	20	28	JAN 13,1975	
2,785	331,777	20	30	JAN 13,1975	
2,818	331,777	20	32	JAN 13,1975	
2,851	331,803	20	34	JAN 13,1975	
2,884	331,803	20	36	JAN 13,1975	
2,917	331,803	20	38	JAN 13,1975	
2,950	331,803	20	40	JAN 13,1975	
2,983	331,803	20	42	JAN 13,1975	
3,017	331,803	20	44	JAN 13,1975	END OF TEST

92 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11210-KK

DATE OF JOB
JANUARY 13, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

PREPARED FOR

ATLANTIC RICHFIELD COMPANY

WELL NUMBER	FEDERAL SG-17
FIELD/LEASE	SORGHUM GULCH TRACT CB
COUNTY/PARISH	RIO BLANCO
STATE	COLORADO
TYPE OF TEST	MULTIPLE PACKER DST
REFERENCE ELEV	GROUND LEVEL

ADDITIONAL INFORMATION

THESE DATA FROM POSITION NO. 3 OF A SIX INTERVAL SERIES.

THIS TEST FROM GAUGE NO. 88 WITH 1000 LB ELEMENT PLACED IN ANNULUS AT 1146 FT.

UPPER PACKER SET AT 1184 FT.

INITIAL HYDROSTATIC PRESSURE 296.86 PSI

FINAL HYDROSTATIC PRESSURE 296.75 PSI

THIS GAUGE REFERRED TO AS BEING TOP OUTSIDE.

REFERENCE ELEVATION IS 7036 FT.

111 POINTS REPORTED THIS JOB

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JOB NUMBER                                                                      DATE OF JOB
SPG-11210-KK                                                               JANUARY 13, 1975

GAUGE/RUN NUMBER                                                                DATE OF RUN
88     MPT NO.2     INIT.FLOW                                              JANUARY 20, 1975

                                     SPERRY-SUN
                       PRECISION SUBSURFACE PRESSURE GAUGE REPORT

    DELTA   PRESSURE                         TIME     DATE              COMMENTS
    TIME     (PSI)                          HR MIN

    0.000    299.338                        17  05 JAN 13,1975   INITIAL OPEN
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                          1 POINTS REPORTED THIS RUN
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JOB NUMBER
SPG-11210-KK

DATE OF JOB
JANUARY 13, 1975

GAUGE/RUN NUMBER
88 MPT NO.2 SHUT-IN

DATE OF RUN
JANUARY 20, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0.000	299.712	17	07	JAN 13,1975	INITIAL CLOSE
.033	299.362	17	09	JAN 13,1975	
.067	299.759	17	11	JAN 13,1975	
.100	300.086	17	13	JAN 13,1975	
.133	300.273	17	15	JAN 13,1975	
.167	300.483	17	17	JAN 13,1975	
.200	300.553	17	19	JAN 13,1975	
.233	300.717	17	21	JAN 13,1975	
.267	300.834	17	23	JAN 13,1975	
.300	300.950	17	25	JAN 13,1975	
.333	301.067	17	27	JAN 13,1975	
.367	301.137	17	29	JAN 13,1975	
.400	301.184	17	31	JAN 13,1975	
.433	301.254	17	33	JAN 13,1975	
.467	301.324	17	35	JAN 13,1975	
.500	301.418	17	37	JAN 13,1975	END INIT. SI

16 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11210-KK

DATE OF JOB
JANUARY 13, 1975

GAUGE/RUN NUMBER
88 MPT NO.2 FINAL FLOW

DATE OF RUN
JANUARY 20, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0.000	325.523	17	43	JAN 13,1975	FINAL OPEN
.032	323.818	17	45	JAN 13,1975	
.065	324.238	17	47	JAN 13,1975	
.097	324.565	17	49	JAN 13,1975	
.130	324.962	17	51	JAN 13,1975	
.162	325.173	17	53	JAN 13,1975	
.195	325.243	17	55	JAN 13,1975	
.227	325.383	17	57	JAN 13,1975	
.259	325.476	17	59	JAN 13,1975	
.292	325.570	18	01	JAN 13,1975	
.324	325.640	18	02	JAN 13,1975	
.357	325.687	18	04	JAN 13,1975	START DOWN DP
.389	325.733	18	06	JAN 13,1975	WITH 5 GPM
.422	325.803	18	08	JAN 13,1975	
.454	325.850	18	10	JAN 13,1975	
.487	325.897	18	12	JAN 13,1975	
.519	325.944	18	14	JAN 13,1975	
.551	325.990	18	16	JAN 13,1975	
.584	326.037	18	18	JAN 13,1975	
.616	326.037	18	20	JAN 13,1975	START DOWN DP
.649	326.060	18	22	JAN 13,1975	WITH 10 GPM
.681	326.084	18	24	JAN 13,1975	
.714	326.107	18	26	JAN 13,1975	
.746	326.131	18	28	JAN 13,1975	
.778	326.154	18	30	JAN 13,1975	
.811	326.177	18	32	JAN 13,1975	
.843	326.201	18	34	JAN 13,1975	
.876	326.201	18	36	JAN 13,1975	START DOWN DP
.908	326.247	18	37	JAN 13,1975	WITH 20 GPM
.941	326.201	18	39	JAN 13,1975	
.973	326.271	18	41	JAN 13,1975	
1.006	326.271	18	43	JAN 13,1975	
1.038	326.294	18	45	JAN 13,1975	
1.070	326.294	18	47	JAN 13,1975	
1.103	326.317	18	49	JAN 13,1975	START DOWN DP
1.135	326.317	18	51	JAN 13,1975	WITH 30 GPM
1.168	326.341	18	53	JAN 13,1975	
1.200	326.364	18	55	JAN 13,1975	
1.233	326.364	18	57	JAN 13,1975	
1.265	326.364	18	59	JAN 13,1975	

JOB NUMBER
SPG-11210-KK

DATE OF JOB
JANUARY 13, 1975

GAUGE/RUN NUMBER
88 MPT NO.2 FINAL FLOW

DATE OF RUN
JANUARY 20, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR MIN	DATE	COMMENTS
1.297	326.387	19 01	JAN 13,1975	
1.330	326.387	19 03	JAN 13,1975	
1.362	326.434	19 05	JAN 13,1975	
1.395	326.458	19 07	JAN 13,1975	START DOWN DP
1.427	326.458	19 09	JAN 13,1975	WITH 40 GPM
1.460	326.481	19 11	JAN 13,1975	
1.492	326.481	19 13	JAN 13,1975	
1.525	326.481	19 14	JAN 13,1975	
1.557	326.481	19 16	JAN 13,1975	
1.589	326.504	19 18	JAN 13,1975	
1.622	326.528	19 20	JAN 13,1975	START DOWN DP
1.654	326.528	19 22	JAN 13,1975	WITH 60 GPM
1.687	326.551	19 24	JAN 13,1975	
1.719	326.574	19 26	JAN 13,1975	
1.752	326.574	19 28	JAN 13,1975	
1.784	326.574	19 30	JAN 13,1975	
1.816	326.598	19 32	JAN 13,1975	
1.849	326.598	19 34	JAN 13,1975	
1.881	326.621	19 36	JAN 13,1975	
1.914	326.668	19 38	JAN 13,1975	
1.946	326.785	19 40	JAN 13,1975	
1.979	326.948	19 42	JAN 13,1975	START DECLINE
2.011	327.135	19 44	JAN 13,1975	
2.044	327.345	19 46	JAN 13,1975	
2.076	327.509	19 48	JAN 13,1975	
2.108	327.462	19 50	JAN 13,1975	
2.141	327.369	19 51	JAN 13,1975	
2.173	327.275	19 53	JAN 13,1975	
2.206	327.182	19 55	JAN 13,1975	
2.238	327.135	19 57	JAN 13,1975	
2.271	327.088	19 59	JAN 13,1975	
2.303	327.042	20 01	JAN 13,1975	
2.335	326.972	20 03	JAN 13,1975	
2.368	326.948	20 05	JAN 13,1975	
2.400	326.925	20 07	JAN 13,1975	
2.433	326.878	20 09	JAN 13,1975	
2.465	326.878	20 11	JAN 13,1975	
2.498	326.878	20 13	JAN 13,1975	
2.530	326.855	20 15	JAN 13,1975	
2.563	326.831	20 17	JAN 13,1975	

JOB NUMBER
SPG-11210-KK

DATE OF JOB
JANUARY 13, 1975

GAUGE/RUN NUMBER
88 MPT NO,2 FINAL FLOW

DATE OF RUN
JANUARY 20, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
2,595	326,831	20	19	JAN 13,1975	
2,627	326,855	20	21	JAN 13,1975	
2,660	326,808	20	23	JAN 13,1975	
2,692	326.831	20	25	JAN 13,1975	
2,725	326,831	20	26	JAN 13,1975	
2,757	326,855	20	28	JAN 13,1975	
2,790	326,855	20	30	JAN 13,1975	
2,822	326,831	20	32	JAN 13,1975	
2,854	326,855	20	34	JAN 13,1975	
2,887	326.831	20	36	JAN 13,1975	
2,919	326.831	20	38	JAN 13,1975	
2,952	326.831	20	40	JAN 13,1975	END DECLINE
2,984	326,831	20	42	JAN 13,1975	
3,017	326,831	20	44	JAN 13,1975	END TEST

94 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11210-KK

DATE OF JOB
JANUARY 13, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

PREPARED FOR

ATLANTIC RICHFIELD COMPANY

WELL NUMBER	FEDERAL SG-17
FIELD/LEASE	SORGHUM GULCH TRACT CB
COUNTY/PARISH	RIO BLANCO
STATE	COLORADO
TYPE OF TEST	MULTIPLE PACKER DST
REFERENCE ELEV	GROUND LEVEL

ADDITIONAL INFORMATION

THESE DATA FROM POSITION NO. 3 OF A SIX INTERVAL SERIES.

THIS TEST FROM GAUGE NO. 222 WITH 1400 LB. ELEMENT

THIS GAUGE RUN AT 1196 FT. (BELOW TOP PACKER WHICH WAS AT 1184 FT.) AND

ABOVE MIDDLE PACKER SET AT 1208 FT.

INITIAL HYDROSTATIC PRESSURE WAS 320.82 PSI

FINAL HYDROSTATIC PRESSURE WAS 317.58 PSI

THIS GAUGE REFERRED TO AS BEING TOP INSIDE

REFERENCE ELEVATION IS 7036 FT.

113 POINTS REPORTED THIS JOB

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JOB NUMBER                                                              DATE OF JOB
SPG-11210-KK                                                       JANUARY 13, 1975

GAUGE/RUN NUMBER                                                        DATE OF RUN
222    MPT NO.2  INIT. FLOW                                        JANUARY 20, 1975

                                  SPERRY-SUN
                   PRECISION SUBSURFACE PRESSURE GAUGE REPORT

    DELTA    PRESSURE                      TIME     DATE            COMMENTS
    TIME      (PSI)                       HR MIN

    0.000     321.252                     17  05 JAN 13,1975    INITIAL OPEN
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1 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11210-KK

DATE OF JOB
JANUARY 13, 1975

GAUGE/RUN NUMBER
222 MPT NO.2 SHUT-IN

DATE OF RUN
JANUARY 20, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0.000	321.252	17	07	JAN 13,1975	INITIAL CLOSE
.033	327.753	17	09	JAN 13,1975	
.067	327.820	17	11	JAN 13,1975	
.100	327.853	17	13	JAN 13,1975	
.133	327.820	17	15	JAN 13,1975	
.167	327.853	17	17	JAN 13,1975	
.200	327.953	17	19	JAN 13,1975	
.233	327.953	17	21	JAN 13,1975	
.267	327.953	17	23	JAN 13,1975	
.300	328.020	17	25	JAN 13,1975	
.333	328.120	17	27	JAN 13,1975	
.367	328.086	17	29	JAN 13,1975	
.400	328.120	17	31	JAN 13,1975	
.433	328.153	17	33	JAN 13,1975	
.467	328.253	17	35	JAN 13,1975	
.500	328.253	17	37	JAN 13,1975	
.533	328.120	17	39	JAN 13,1975	
.567	328.253	17	41	JAN 13,1975	
.600	344.389	17	43	JAN 13,1975	END CLOSE

19 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11210-KK

DATE OF JOB
JANUARY 13, 1975

GAUGE/RUN NUMBER
222 MPT NO.2 FINAL FLOW

DATE OF RUN
JANUARY 20, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0.000	344.389	17	43	JAN 13,1975	FINAL OPEN
.033	331.254	17	45	JAN 13,1975	
.066	329.187	17	47	JAN 13,1975	
.098	328.853	17	49	JAN 13,1975	
.131	328.687	17	51	JAN 13,1975	
.164	328.587	17	53	JAN 13,1975	
.197	328.587	17	55	JAN 13,1975	
.230	328.653	17	57	JAN 13,1975	
.262	328.553	17	59	JAN 13,1975	
.295	328.553	18	01	JAN 13,1975	
.328	328.520	18	03	JAN 13,1975	
.361	328.687	18	05	JAN 13,1975	START INJECT
.393	335.054	18	07	JAN 13,1975	5 GPM IN DP
.426	337.921	18	09	JAN 13,1975	
.459	339.022	18	11	JAN 13,1975	
.492	339.622	18	13	JAN 13,1975	
.525	339.888	18	14	JAN 13,1975	
.557	340.022	18	16	JAN 13,1975	
.590	340.322	18	18	JAN 13,1975	
.623	343.222	18	20	JAN 13,1975	START INJECT
.656	344.489	18	22	JAN 13,1975	10 GPM IN DP
.689	345.123	18	24	JAN 13,1975	
.721	345.456	18	26	JAN 13,1975	
.754	345.689	18	28	JAN 13,1975	
.787	345.823	18	30	JAN 13,1975	
.820	345.956	18	32	JAN 13,1975	
.853	346.189	18	34	JAN 13,1975	START INJECT
.885	357.325	18	36	JAN 13,1975	20 GPM IN DP
.918	363.492	18	38	JAN 13,1975	
.951	366.726	18	40	JAN 13,1975	
.984	368.393	18	42	JAN 13,1975	
1.016	369.460	18	44	JAN 13,1975	
1.049	369.893	18	46	JAN 13,1975	
1.082	370.494	18	48	JAN 13,1975	
1.115	378.528	18	50	JAN 13,1975	START INJECT
1.148	388.530	18	52	JAN 13,1975	30 GPM IN DP
1.180	391.030	18	54	JAN 13,1975	
1.213	390.397	18	56	JAN 13,1975	
1.246	390.564	18	58	JAN 13,1975	
1.279	390.764	19	00	JAN 13,1975	

JOB NUMBER
SPG-11210-KK

DATE OF JOB
JANUARY 13, 1975

GAUGE/RUN NUMBER
222 MPT NO.2 FINAL FLOW

DATE OF RUN
JANUARY 20, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
1.312	391.064	19	02	JAN 13,1975	
1.344	396.164	19	04	JAN 13,1975	
1.377	413.334	19	06	JAN 13,1975	START INJECT
1.410	417.801	19	08	JAN 13,1975	40 GPM IN DP
1.443	422.035	19	10	JAN 13,1975	
1.476	424.669	19	12	JAN 13,1975	
1.508	426.470	19	14	JAN 13,1975	
1.541	427.336	19	15	JAN 13,1975	
1.574	447.940	19	17	JAN 13,1975	
1.607	461.442	19	19	JAN 13,1975	START INJECT
1.639	469.310	19	21	JAN 13,1975	60 GPM IN DP
1.672	471.144	19	23	JAN 13,1975	
1.705	476.978	19	25	JAN 13,1975	
1.738	477.812	19	27	JAN 13,1975	
1.771	478.512	19	29	JAN 13,1975	
1.803	478.778	19	31	JAN 13,1975	
1.836	478.312	19	33	JAN 13,1975	
1.869	451.774	19	35	JAN 13,1975	
1.902	410.400	19	37	JAN 13,1975	
1.935	407.366	19	39	JAN 13,1975	
1.967	367.393	19	41	JAN 13,1975	START DECLINE
2.000	347.390	19	43	JAN 13,1975	
2.033	339.655	19	45	JAN 13,1975	
2.066	336.988	19	47	JAN 13,1975	
2.099	335.688	19	49	JAN 13,1975	
2.131	334.888	19	51	JAN 13,1975	
2.164	334.287	19	53	JAN 13,1975	
2.197	333.854	19	55	JAN 13,1975	
2.230	333.487	19	57	JAN 13,1975	
2.263	333.154	19	59	JAN 13,1975	
2.295	332.921	20	01	JAN 13,1975	
2.328	332.787	20	03	JAN 13,1975	
2.361	332.520	20	05	JAN 13,1975	
2.394	332.320	20	07	JAN 13,1975	
2.426	332.287	20	09	JAN 13,1975	
2.459	332.187	20	11	JAN 13,1975	
2.492	332.020	20	13	JAN 13,1975	
2.525	331.854	20	14	JAN 13,1975	
2.558	331.854	20	16	JAN 13,1975	
2.590	331.787	20	18	JAN 13,1975	

JOB NUMBER
SPG-11210-KK

DATE OF JOB
JANUARY 13, 1975

GAUGE/RUN NUMBER
222 MPT NO,2 FINAL FLOW

DATE OF RUN
JANUARY 20, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	TIME MIN	DATE	COMMENTS
2,623	331,720	20	20	JAN 13,1975	
2,656	331,554	20	22	JAN 13,1975	
2,689	331,520	20	24	JAN 13,1975	
2,722	331,554	20	26	JAN 13,1975	
2,754	331,454	20	28	JAN 13,1975	
2,787	331,354	20	30	JAN 13,1975	
2,820	331,354	20	32	JAN 13,1975	
2,853	331,387	20	34	JAN 13,1975	
2,886	331,320	20	36	JAN 13,1975	
2,918	331,254	20	38	JAN 13,1975	
2,951	331,054	20	40	JAN 13,1975	
2,984	331,187	20	42	JAN 13,1975	
3,017	331,187	20	44	JAN 13,1975	END TEST ZONE3

93 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11210-KK

DATE OF JOB

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

PREPARED FOR

ATLANTIC RICHFIELD COMPANY

WELL NUMBER	FEDERAL SG-17
FIELD/LEASE	SORGHUM GULCH TRACT CB
COUNTY/PARISH	RIO BLANCO
STATE	COLORADO
TYPE OF TEST	MULTIPLE PACKER DST
REFERENCE ELEV	GROUND LEVEL

ADDITIONAL INFORMATION

THESE DATA FROM POSITION NO. 3 OF A SIX INTERVAL SERIES

THIS TEST FROM GAUGE NO. 193 WITH 1400 LB. ELEMENT

THIS GAUGE RUN AT 1221 FT. (BELOW MIDDLE PACKER WHICH WAS AT 1208 FT.) AND ABOVE BOTTOM PACKER WHICH WAS AT 1232 FT. FOR THIS TEST.

INITIAL HYDROSTATIC WAS 330.22 PSI

FINAL HYDROSTATIC WAS 330.03 PSI

THIS GAUGE REFERRED TO AS BEING MIDDLE INSIDE.

REFERENCE ELEVATION IS 7036 FT.

113 POINTS REPORTED THIS JOB

JOB NUMBER
SPG-11210-KK

DATE OF JOB
JANUARY 13, 1975

GAUGE/RUN NUMBER
193 MPT NO.2 INIT.FLOW

DATE OF RUN
JANUARY 20, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0.000	334.072	17	05	JAN 13,1975	INITIAL OPEN
.033	334.451	17	07	JAN 13,1975	END OPEN

2 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11210-KK

DATE OF JOB
JANUARY 13, 1975

GAUGE/RUN NUMBER
193 MPT NO.2 SHUT-IN

DATE OF RUN
JANUARY 20, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0.000	334.451	17	07	JAN 13,1975	INITIAL CLOSE
.032	337.228	17	09	JAN 13,1975	
.065	336.313	17	11	JAN 13,1975	
.097	336.376	17	13	JAN 13,1975	
.129	336.470	17	15	JAN 13,1975	
.161	336.470	17	17	JAN 13,1975	
.194	336.533	17	19	JAN 13,1975	
.226	336.660	17	21	JAN 13,1975	
.258	336.754	17	23	JAN 13,1975	
.291	336.786	17	24	JAN 13,1975	
.323	336.912	17	26	JAN 13,1975	
.355	336.912	17	28	JAN 13,1975	
.388	336.880	17	30	JAN 13,1975	
.420	336.944	17	32	JAN 13,1975	
.452	337.038	17	34	JAN 13,1975	
.484	336.975	17	36	JAN 13,1975	
.517	336.975	17	38	JAN 13,1975	END CLOSE

17 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11210-KK

DATE OF JOB

GAUGE/RUN NUMBER
193 MPT NO.2 FINAL FLOW

DATE OF RUN
JANUARY 27, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0.000	336.975	17	43	JAN 13,1975	FINAL OPEN
.032	335.997	17	45	JAN 13,1975	
.065	336.218	17	47	JAN 13,1975	
.097	336.281	17	49	JAN 13,1975	
.130	337.196	17	51	JAN 13,1975	
.162	337.385	17	53	JAN 13,1975	
.195	337.385	17	55	JAN 13,1975	
.227	337.196	17	57	JAN 13,1975	
.259	337.133	17	59	JAN 13,1975	
.292	337.196	18	01	JAN 13,1975	
.324	337.007	18	02	JAN 13,1975	
.357	337.070	18	04	JAN 13,1975	START DOWN DP
.389	337.164	18	06	JAN 13,1975	WITH 5 GPM
.422	337.164	18	08	JAN 13,1975	
.454	337.291	18	10	JAN 13,1975	
.487	337.354	18	12	JAN 13,1975	
.519	337.890	18	14	JAN 13,1975	
.551	338.427	18	16	JAN 13,1975	
.584	338.963	18	18	JAN 13,1975	
.616	339.373	18	20	JAN 13,1975	START DOWN DP
.649	339.562	18	22	JAN 13,1975	WITH 10 GPM
.681	339.783	18	24	JAN 13,1975	
.714	340.036	18	26	JAN 13,1975	
.746	340.036	18	28	JAN 13,1975	
.778	340.509	18	30	JAN 13,1975	
.811	340.761	18	32	JAN 13,1975	
.843	341.014	18	34	JAN 13,1975	
.876	341.077	18	36	JAN 13,1975	START DOWN DP
.908	341.235	18	37	JAN 13,1975	WITH 20 GPM
.941	341.392	18	39	JAN 13,1975	
.973	341.519	18	41	JAN 13,1975	
1.006	342.118	18	43	JAN 13,1975	
1.038	342.907	18	45	JAN 13,1975	
1.070	343.601	18	47	JAN 13,1975	
1.103	344.169	18	49	JAN 13,1975	START DOWN DP
1.135	344.705	18	51	JAN 13,1975	WITH 30 GPM
1.168	345.052	18	53	JAN 13,1975	
1.200	345.431	18	55	JAN 13,1975	
1.233	345.999	18	57	JAN 13,1975	
1.265	346.630	18	59	JAN 13,1975	

JOB NUMBER
SPG-11210-KK

DATE OF JOB

GAUGE/RUN NUMBER
193 MPT NO.2 FINAL FLOW

DATE OF RUN
JANUARY 2/, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR MIN	DATE	COMMENTS
1,297	347,261	19 01	JAN 13,1975	
1,330	347,734	19 03	JAN 13,1975	
1.362	348.081	19 05	JAN 13,1975	
1.395	348.429	19 07	JAN 13,1975	START DOWN DP
1.427	348.618	19 09	JAN 13,1975	WITH 40 GPM
1,460	349.028	19 11	JAN 13,1975	
1.492	349.785	19 13	JAN 13,1975	
1,525	350.574	19 14	JAN 13,1975	
1,557	351,237	19 16	JAN 13,1975	
1,589	351,805	19 18	JAN 13,1975	
1,622	352.278	19 20	JAN 13,1975	START DOWN DP
1,654	352,783	19 22	JAN 13,1975	WITH 60 GPM
1.687	353.035	19 24	JAN 13,1975	
1,719	354.045	19 26	JAN 13,1975	
1,752	354,991	19 28	JAN 13,1975	
1.784	356.096	19 30	JAN 13,1975	
1.816	356,885	19 32	JAN 13,1975	
1.849	357.484	19 34	JAN 13,1975	
1.881	357.926	19 36	JAN 13,1975	
1,914	358.304	19 38	JAN 13,1975	
1,946	358,651	19 40	JAN 13,1975	
1,979	358,967	19 42	JAN 13,1975	START DECLINE
2,011	359,125	19 44	JAN 13,1975	
2.044	358,715	19 46	JAN 13,1975	
2.076	357,042	19 48	JAN 13,1975	
2,108	354,392	19 50	JAN 13,1975	
2,141	351,615	19 51	JAN 13,1975	
2,173	349,249	19 53	JAN 13,1975	
2.206	347,482	19 55	JAN 13,1975	
2.238	346.157	19 57	JAN 13,1975	
2,271	345,210	19 59	JAN 13,1975	
2,303	344.421	20 01	JAN 13,1975	
2,335	343,790	20 03	JAN 13,1975	
2,368	343,412	20 05	JAN 13,1975	
2.400	343,128	20 07	JAN 13,1975	
2,433	342,844	20 09	JAN 13,1975	
2,465	342.497	20 11	JAN 13,1975	
2.498	342.244	20 13	JAN 13,1975	
2.530	342,087	20 15	JAN 13,1975	
2.563	342,087	20 17	JAN 13,1975	

JOB NUMBER
SPG-11210-KK

DATE OF JOB

GAUGE/RUN NUMBER
193 MPT NO.2 FINAL FLOW

DATE OF RUN
JANUARY 2/, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	TIME MIN	DATE	COMMENTS
2.595	341.929	20	19	JAN 13,1975	
2.627	341.834	20	21	JAN 13,1975	
2.660	341.834	20	23	JAN 13,1975	
2.692	341.676	20	25	JAN 13,1975	
2.725	341.487	20	26	JAN 13,1975	
2.757	341.392	20	28	JAN 13,1975	
2.790	341.298	20	30	JAN 13,1975	
2.822	341.266	20	32	JAN 13,1975	
2.854	341.266	20	34	JAN 13,1975	
2.887	341.298	20	36	JAN 13,1975	
2.919	341.298	20	38	JAN 13,1975	
2.952	341.266	20	40	JAN 13,1975	
2.984	341.235	20	42	JAN 13,1975	
3.017	341.108	20	44	JAN 13,1975	END OF TEST

94 POINTS REPORTED THIS RUN

MPT Series 3 - SG-17

MULTI-PACKER TEST SERIES NO. 3

SG-17

sperry-sun

POST OFFICE BOX 36363 HOUSTON, TEXAS 77036 (713) 494-3021

J. A. Fouché
President

January 30, 1975

Mr. Frederick R. Scheerer
Atlantic-Richfield Company
1500 Security Life Building
Denver, Colorado 80202

Dear Sir:

Enclosed are the originals of our Pressure Gauge Multiple Packer Drill Stem Test reports. These are covered by our Job No. SPG-11210-LL, performed on Federal SG-17 Well, Tract C-b Sorghum Gulch, Piceance Creek Basin, Rio Blanco County, Colorado, performed on January 14 and 15, 1975. This test was covering six separate zones as follows:

Gauge No.	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6
71	1384	1146	1109	1085	1300	1051
222	1433	1195	1158	1134	1349	1100
193	1458	1220	1183	1159	1374	1125

Gauge No. 71 covered the pressures in the annulus above the top packer. Gauge No. 222 was located in the drill pipe below the upper packer and above the middle packer. Gauge No. 193 was below the middle packer and above the lowest packer. Our Gauge No. 123, which was located below the bottom packer, failed to produce data so none is reported.

All related work papers and charts from the appropriate gauges are included.

The distribution to the attached list is also being made this date.

Please advise if you have any questions relative to the enclosures. It is our pleasure to be of continued service and further transmittals on other tests will follow.

Very truly yours,

Carl Kisinger Jr.

Carl Kisinger, Jr.
Manager, Pressure Services

CK:jg
Enclosures

GAUGE SET DEPTHS
MPT #3 WELL NO. SG-17
JANUARY 14-15, 1975

Position		
Set 1	Outside	1384
	Top Inside	1433
	Middle Inside	1458
	Bottom Inside	1483
Set 2	Outside	1146
	Top Inside	1195
	Middle Inside	1220
	Bottom Inside	1245
Set 3	Outside	1109
	Top Inside	1158
	Middle Inside	1183
	Bottom Inside	1208
Set 4	Outside	1085
	Top Inside	1134
	Middle Inside	1159
	Bottom Inside	1184
Set 5	Outside	1300
	Top Inside	1349
	Middle Inside	1374
	Bottom Inside	1399
Set 6	Outside	1051
	Top Inside	1100
	Middle Inside	1125
	Bottom Inside	1150

PAGE 1 OF

SURFACE TIME RECORD
MULTI-PACKER TEST SERIES # 2

SPG-11210-LL

DATE	START TIME	END TIME	DESCRIPTION OF OPERATION DURING TIME
1/14/75	1620	1820	MAKE-up Test tool, install Recorder Assembly and start in the hole
1/14/75	1820	1914	Trip in hole to test Depth #1 w/hook @ 1532', PKR's 1422, 1447, 1472
1/14/75	1914	1929	IHP for 15 min at #1 1422', 1447', 1472'/Hook, 532'
1/14/75	1929	1930	Move to set Hook wall and packer set Hook wall & [illegible] @1930
1/14/75	1930	1935	Cycle MFE valve from [illegible] [illegible] open @ 1935
1/14/75	1935	1936	Cycle MFE valve from open to closed closed @ 1936
1/14/75	1936	2006	Record 30 min ISIP @ test depth #1
1/14/75	2006	2011	Cycle MFE from closed to open valve open @ 2011
1/14/75	2011	2041	Measuring H20 inflow w/well [illegible] Reach 427' @ 2041
1/14/75	2041	2050	[illegible] From hole + set up to inject
1/14/75	2050	2105	Start 15 min Injection 86 gals 5.73 gals./min.
1/14/75	2105	2120	Start 15 min Injection 152 gal. 10.13 gal/min.
1/14/75	2120	2135	Start 15 min Injection 300 gal 20 gal/min.
1/14/75	2135	2150	Start 15 min. Injection 450 gal 30 gal/min

1209
1234

USE 24 HOUR CLOCK TIME AND RECORD ALL TIMES TO NEAREST MINUTE. WITH SPERRY SUN QUARTZ CLOCK ON LOCATION.

C.E.M. 1-6-75

42-382 100 SHEETS NATIONAL

SURFACE TIME RECORD
MULTI-PACKER TEST SERIES #2

DATE	START TIME	END TIME	DESCRIPTION OF OPERATION DURING TIME
1/14/75	2150	2205	Start 15min. Injection Down Drill Pipe 337 gal. 55 gal/min (2.748)
1/14/75	2205	2311	Taking min. Fall off Period on Test Depth #1
1/14/75	2311.	2317	Cycle MFE TOOL to closed close @ 2311 hrs
1/14/75	2317	2319	Unseat Test assembly From Test depth #1 unseat @ 2319
1/14/75	2319	2334	Taking 15min FHP at Test depth #1
1/14/75	2334	0015	Move Test assembly to Test depth #3 and space out on rig Floor
1/15/75	0015	0030	Record 15min I.H.P. at test depth #3 – Hook Wall @ 1504' Pkr. 1188' Ins. @ 1234
1/15/75	0030	0031	Move to set Hook Wall & Pkrs Set Hook Wall & Pkrs @ 0031
	0031	0038	Cycle MFE Tool From closed to open
	0038	0039	Cycled MFE Tool From open to closed position
	0039	0109	Recording ISIP For 30min. @ Test Depth #3
	0109	0116	Cycled MFE To From close to open & open @ 0116
	0116	0140	Measuring H_2O in Flow w/Well Sounder reached 436.5' @ 0131
	0140	0155	Start 15min. Injection 90 gals 6 gal./min.

USE 24 HOUR CLOCK TIME AND RECORD ALL TIMES TO NEAREST MINUTE. WITH SPERRY SUN QUARTZ CLOCK ON LOCATION.

II B-1797

C.E.R. 1-6-75

SURFACE TIME RECORD
MULTI-PACKER TEST SERIES # 2

DATE	START TIME	END TIME	DESCRIPTION OF OPERATION DURING TIME
1/15/75	0155	0210	Start 15 min. INjection 165 gal 11 gal/min.
1/15/75	0210	0225	Start 15 min Injection 295 Gals 20 GPM
1/15/75	0225	0240	40 GPm Injection Period 595 Gals 40 GPm
1/15/75	0240	0255	60 GPm Injection Period 318 gals.
1/15/75	0255	0359-30	Start Decline for 60 min 263.0' to 431.7 at 60 min
1/15/75	0359-30	0405 ✓	~~unseat Packer~~ + ~~S~~ Cycle MFE VALVE to close.
1/15/75	0405	0409	unseat Packer up about 20' then back down for FHP
1/15/75	0409	0424	FHP on on zone for 15 min
1/15/75	0424	0444	move to rig up for next test depth # 4.
1/15/75	0444	0459	IHP for Test depth #4 1147' 1172' 1197' Packers
"	0459	0500	set Hookwall + Packers ~~Cycle~~
"	0500	0509	Cycle MFE Valve (0505 open) closed open Closed
"	0509	0539	30 min ISIP test for Zone 4. Test 3
"	0539	0546-30	Cycle MFE tool to open

USE 24 HOUR CLOCK TIME AND RECORD ALL TIMES TO NEAREST MINUTE.
WITH SPERRY SUN QUARTZ CLOCK ON LOCATION.

C.E.R. 1-6-75

42.382 100 SHEETS NATIONAL

SURFACE TIME RECORD
MULTI-PACKER TEST SERIES # 2

DATE	START TIME	END TIME	DESCRIPTION OF OPERATION DURING TIME
1/15/75	0546-30	0556	Begin Recovery test From 435.3 to 448.1
"	0556	0600	Pull well Sounder
"	0600	0615	5 GPM Injection 9. Gals
"	0615	0630	10 GPM Injecton 161 Gallons
"	0630	0645	20 GPM Injection. 300 Gallons
"	0645	0700	40 GPM Injection 566 Gallons
"	0700	0703	60 GPM Injection —— Gallons
"	0703	0715	overflow. App 52 GPM
"	0715	0815	Decline for 60 min from Surface to 415.5' feet
"	0821	0827	0815 to 0821 Pull Sounders.
"	0827	0827-30	unseat Packers
"	0827-30	0842	FHP for 15 min @ Test Depth #4 + 5' From Depth
"	0842	0904	move to Test Depth #5.
"	0904	0919	IHP for Test Depth #5 15 min 1123' 1148' 1173'

USE 24 HOUR CLOCK TIME AND RECORD ALL TIMES TO NEAREST MINUTE.
WITH SPERRY SUN QUARTZ CLOCK ON LOCATION.

C.E.P. 1-6-75

42.182 100 SHEETS NATIONAL

SURFACE TIME RECORD
MULTI-PACKER TEST SERIES # 2

DATE	START TIME	END TIME	DESCRIPTION OF OPERATION DURING TIME
1/15/74	0919	0920	set PACKER + HOOK WALL PKR's 1123' 1148' 1173' Hook WALL @ 1243'
"	0920	0931	CYCLE MFE VALVE (OPEN 0930) OPEN CLOSE OPEN
"	0931	1001	ISIP @ Test Depth #5 For 30 min
"	1001	1009	cycle MFE to open for Recovery
"	1009	10~~30~~29	60 min Recovery Test From 417.4 to 444.9 Feet
"	10~~30~~29	1100	Pull well sounder get ready for Injection
"	1100	1115	Injection Period for 15 min 79 GAL. @ 5.27 GAL/min
"	1115	1130	Injection Period For 15 min 169 gALS. 11.26 gAL/min
"	1130	11:43	Injection Period For 13 min 256 gAL. 19.7 gAL/min.
"	1143	1158	OverFlow For 15 min. Stabilized 200 gALs. 13.33 gAL./min.
"	1158	1258	Injection Decline 60 min
"	1258	1300	Cycle MFE TOOL to closed tool closed @ 1300
"	1300	1307	Unseat test Assembly from Test Depth #5 unseated @ 1307 hrs.
"	1307	1323	TAKing 15 min. FHP @ Test Depth #5

USE 24 HOUR CLOCK TIME AND RECORD ALL TIMES TO NEAREST MINUTE. II B-1800
WITH SPERRY SUN QUARTZ CLOCK ON LOCATION.

C.E.R. 1-6-75

NATIONAL 42.182 100 SHEETS

Page 12 of ____

SURFACE TIME RECORD
MULTI-PACKER TEST SERIES # 2

DATE	START TIME	END TIME	DESCRIPTION OF OPERATION DURING TIME
1/15/75	1323	1350	Moving Assembly Down! to test Depth #2 and space out on Rig Floor
"	1350	1405	IHP For 15 min @ Test Depth #2 Hook @ 1458', PKrs @ 1338'-1363'-1388'
"	1405	1406	Move to set Hook Wall + PKRs set Hook Wall + PKR's @ 1406
"	1406	1412	Cycle MFE Tool From closed to open + open @ 1412
"	1412	1413	Cycle MFE Tool from open to closed + closed @
"	1413	1443	Record 30 min. ISIP @ Test depth #2
"	1443	1447	Cycle MFE Tool From closed to open + open @
"	1447	1504	Measuring H_2O inflow w/well sounder Reached 472.4' @ 1504
"	1504	1510	Preparing for injection
"	1510	1525	Injection Period For 15 min. 87 gal, 5.8 gal/min.
"	1525	1540	Injection Period for 15 min. 150 gal. 10 gal/min
"	1540	1555	Injection Period For 15 min. 302 gals 20.1 gpm
"	1555	1610	Injection Period For 15 min. 554 gal. 36.9 gpm
"	1610	1625	Injection Period For 15 min. 869 gals 57.8 gpm

USE 24 HOUR CLOCK TIME AND RECORD ALL TIMES TO NEAREST MINUTE.
WITH SPERRY SUN QUARTZ CLOCK ON LOCATION.

II B-1801 C.E.R. 1-6-75

42.182 100 SHEETS NATIONAL

SURFACE TIME RECORD
MULTI-PACKER TEST SERIES #2

DATE	START TIME	END TIME	DESCRIPTION OF OPERATION DURING TIME
1/15/75	1625	1729	Start Decline 60 min.
"	1729	1734	cycle MFE closed ✓
"	1734	1735	unseat Packers + Hookwall
"	1735	1750	FHP for 15 min on Test #2 Jars went off 1739
1/15/75	1750	1815	move to Rig up at floor for Test # 6' up
1/15/75	1815	1830	IHP for 15 min on Test 6 1029, ~~1113~~ 1114, 1139
1/15/75	1830	1831	Move to set Hangwall + Packers
1/15/75	1831	1841	cycle MFE Valve (open at 1840) open Close
1/15/75	1841	1911	ISIP for 30 min on Test 6
1/15/75	1911	1920	cycle MFE TOOL OPEN For Recovery (open at)
1/15/75	1920	2020	Recovery Test #6 From 235 to 417 Feet
1/15/75	2020	2025	Pull sounder + set up for injection
1/15/75	2025	2040	5 GPm Injection for 15 min 79 Gals
1/15/75	2040	2055	10 GPm Injection for 15 min 149 Galls

USE 24 HOUR CLOCK TIME AND RECORD ALL TIMES TO NEAREST MINUTE.
WITH SPERRY SUN QUARTZ CLOCK ON LOCATION.

C.E.R. 1-6-75

42-182 100 SHEETS NATIONAL

SURFACE TIME RECORD
MULTI-PACKER TEST SERIES # 2

DATE	START TIME	END TIME	DESCRIPTION OF OPERATION DURING TIME
1/15/75	2055	2100	Pulled water as not getting enough rate
1/15/75	2100	2107	20 GPm Injection for 15 min 134 Gals started emptying and partial overflow at 2104
1/15/75	2107	2122	overflow at 11 GPM
1/15/75	2122	2225	Decline for 60 min
1/15/75	2225	2240	20 GPM Injection Annulus for 15 min 285 Gals
1/15/75	2240	2255	40 GPm Injection Annulus for 15 min 566 Gals
1/15/75	2255	2310	60 GPm Injection Annulus for 15 min 351 x 2.75 Gals
1/15/75	2310	2340	30 min Decline in Annulus
1/15/75	2340	2358	Pull Sounders + Start Engines on Rig ([illegible])
1/15/75	2358	——	Cycle MFE Tool to Unset Packers Closed position @ 2358
1/15/75	2358	1/16/75 0013	FHP on Test Depth #6 for 15 min.
1/16/75	0013		Pull Test Assembly out of the hole.

USE 24 HOUR CLOCK TIME AND RECORD ALL TIMES TO NEAREST MINUTE.
WITH SPERRY SUN QUARTZ CLOCK ON LOCATION.

II B-1803

C.E.R. 1-6-75

NATIONAL 42 182 100 SHEETS

JOB NUMBER
SPG-11210-LL

DATE OF JO
JANUARY 14 AND 15, 197

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

PREPARED FOR

ATLANTIC RICHFIELD COMPANY

WELL NUMBER	FEDERAL SG-17
FIELD/LEASE	SORGHUM GULCH TRACT CB
COUNTY/PARISH	RIO BLANCO
STATE	COLORADO
TYPE OF TEST	MULTIPLE PACKER DST
REFERENCE ELEV	GROUND LEVEL

ADDITIONAL INFORMATION

THESE DATA FROM POSITION NO, 1 OF A SIX INTERVAL SERIES,

DATA FROM GAUGE NO. 222 WITH 1400 LB. ELEMENT PLACED IN DRILL PIPE AT 1433 FT

UPPER PACKER SET AT 1422 FT, AND MIDDLE PACKER WAS SET AT 1447 FT,

INITIAL HYDROSTATIC PRESSURE WAS 431.54 PSI,

FINAL HYDROSTATIC PRESSURE WAS 427.97 PSI

THIS GAUGE REFERRED TO AS BEING TOP INSIDE

REFERENCE ELEVATION IS 7036 FT,

111 POINTS REPORTED THIS JOB

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
222 MPT NO.3 INIT.FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR MIN	DATE	COMMENTS
0.000	430.604	19 35	JAN 14,1975	INITIAL OPEN

1 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
222 MPT NO.3 SHUT-IN

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0.000	430.604	19	36	JAN 14,1975	INITIAL SHUTIN
.033	428.302	19	38	JAN 14,1975	
.067	428.969	19	40	JAN 14,1975	
.100	429.370	19	42	JAN 14,1975	
.133	429.770	19	44	JAN 14,1975	
.167	429.903	19	46	JAN 14,1975	
.200	430.270	19	48	JAN 14,1975	
.233	430.404	19	50	JAN 14,1975	
.267	430.637	19	52	JAN 14,1975	
.300	430.738	19	54	JAN 14,1975	
.333	430.904	19	56	JAN 14,1975	
.367	430.938	19	58	JAN 14,1975	
.400	431.105	20	00	JAN 14,1975	
.433	431.071	20	02	JAN 14,1975	
.467	431.238	20	04	JAN 14,1975	
.500	431.238	20	06	JAN 14,1975	END SHUT-IN

16 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
222 MPT NO.3 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0,000	431,238	20	06	JAN 14,1975	FINAL FLOW
,033	424,565	20	08	JAN 14,1975	
,066	422,596	20	10	JAN 14,1975	
,099	423,997	20	12	JAN 14,1975	
,133	425,165	20	14	JAN 14,1975	
,166	426.133	20	16	JAN 14,1975	
,199	426,967	20	18	JAN 14,1975	
,232	427.735	20	20	JAN 14,1975	
.265	428.335	20	22	JAN 14,1975	
.298	428,869	20	24	JAN 14,1975	
,332	429.336	20	26	JAN 14,1975	
,365	429,703	20	28	JAN 14,1975	
.398	429,903	20	30	JAN 14,1975	
,431	430.170	20	32	JAN 14,1975	
.464	430.471	20	34	JAN 14,1975	
,497	430,504	20	36	JAN 14,1975	
.530	430.704	20	38	JAN 14,1975	
.564	430,838	20	40	JAN 14,1975	
.597	430.938	20	42	JAN 14,1975	
,630	430,971	20	44	JAN 14,1975	
,663	431,138	20	46	JAN 14,1975	
,696	431.105	20	48	JAN 14,1975	
.729	431,271	20	50	JAN 14,1975	DOWN DP WITH
,763	431,739	20	52	JAN 14,1975	5.73 GPM
,796	432.106	20	54	JAN 14,1975	
,829	432.373	20	56	JAN 14,1975	
.862	432,740	20	58	JAN 14,1975	
.895	433.107	21	00	JAN 14,1975	
,928	433.440	21	02	JAN 14,1975	
,961	433.741	21	04	JAN 14,1975	
,995	434,275	21	06	JAN 14,1975	DOWN DP WITH
1.028	434.708	21	08	JAN 14,1975	10.13 GPM
1,061	435.042	21	10	JAN 14,1975	
1.094	435,342	21	12	JAN 14,1975	
1,127	435.543	21	14	JAN 14,1975	
1,160	435,776	21	16	JAN 14,1975	
1,194	435,943	21	18	JAN 14,1975	
1,227	436,844	21	20	JAN 14,1975	DOWN DP WITH
1.260	437,878	21	22	JAN 14,1975	20 GPM
1.293	438,479	21	24	JAN 14,1975	

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
222 MPT NO.3 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
1.326	439.046	21	26	JAN 14,1975	
1.359	439.547	21	28	JAN 14,1975	
1.392	440.080	21	30	JAN 14,1975	
1.426	440.648	21	32	JAN 14,1975	
1.459	441.348	21	34	JAN 14,1975	
1.492	443.651	21	36	JAN 14,1975	DOWN DP WITH
1.525	445.686	21	38	JAN 14,1975	32 GPM
1.558	447.355	21	39	JAN 14,1975	
1.591	448.756	21	41	JAN 14,1975	
1.625	450.057	21	43	JAN 14,1975	
1.658	451.359	21	45	JAN 14,1975	
1.691	452.093	21	47	JAN 14,1975	
1.724	453.094	21	49	JAN 14,1975	DOWN DP WITH
1.757	455.063	21	51	JAN 14,1975	55 GPM
1.790	456.664	21	53	JAN 14,1975	
1.823	458.099	21	55	JAN 14,1975	
1.857	459.233	21	57	JAN 14,1975	
1.890	460.301	21	59	JAN 14,1975	
1.923	461.302	22	01	JAN 14,1975	
1.956	462.270	22	03	JAN 14,1975	
1.989	461.703	22	05	JAN 14,1975	START DECLINE
2.022	457.298	22	07	JAN 14,1975	
2.056	454.362	22	09	JAN 14,1975	
2.089	450.758	22	11	JAN 14,1975	
2.122	447.555	22	13	JAN 14,1975	
2.155	445.086	22	15	JAN 14,1975	
2.168	442.983	22	17	JAN 14,1975	
2.221	441.215	22	19	JAN 14,1975	
2.254	439.747	22	21	JAN 14,1975	
2.288	438.646	22	23	JAN 14,1975	
2.321	437.645	22	25	JAN 14,1975	
2.354	436.844	22	27	JAN 14,1975	
2.387	436.110	22	29	JAN 14,1975	
2.420	435.442	22	31	JAN 14,1975	
2.453	434.808	22	33	JAN 14,1975	
2.487	434.408	22	35	JAN 14,1975	
2.520	433.974	22	37	JAN 14,1975	
2.553	433.540	22	39	JAN 14,1975	
2.586	433.340	22	41	JAN 14,1975	
2.619	433.007	22	43	JAN 14,1975	

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
222 MPT NO.3 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	TIME MIN	DATE	COMMENTS
2.652	432.873	22	45	JAN 14,1975	
2.685	432.606	22	47	JAN 14,1975	
2.719	432.439	22	49	JAN 14,1975	
2.752	432.339	22	51	JAN 14,1975	
2.785	432.239	22	53	JAN 14,1975	
2.818	432.106	22	55	JAN 14,1975	
2.851	431.972	22	57	JAN 14,1975	
2.884	431.905	22	59	JAN 14,1975	
2.918	431.905	23	01	JAN 14,1975	
2.951	431.805	23	03	JAN 14,1975	
2.964	431.705	23	05	JAN 14,1975	
3.017	431.672	23	07	JAN 14,1975	
3.050	431.672	23	09	JAN 14,1975	
3.083	431.572	23	11	JAN 14,1975	END OF TEST

94 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

PREPARED FOR

ATLANTIC RICHFIELD COMPANY

WELL NUMBER	FEDERAL SG-17
FIELD/LEASE	SORGHUM GULCH TRACT CB
COUNTY/PARISH	RIO BLANCO
STATE	COLORADO
TYPE OF TEST	MULTIPLE PACKER DST
REFERENCE ELEV	GROUND LEVEL

ADDITIONAL INFORMATION

THESE DATA FROM POSITION NO. 2 OF A SIX INTERVAL SERIES.

USED GAUGE NO. 222 WITH A 1400 LB. ELEMENT IN DRILL PIPE AT 1195 FT.

THIS GAUGE RUN BELOW TOP PACKER WHICH WAS SET AT 1184 FT. AND ABOVE

MIDDLE PACKER WHICH WAS SET AT 1209 FT.

INITIAL HYDROSTATIC PRESSURE WAS 327.79 PSI

FINAL HYDROSTATIC PRESSURE WAS 328.19 PSI

THIS GAUGE REFERRED TO AS BEING TOP INSIDE

REFERENCE ELEVATION IS 7036 FT.

101 POINTS REPORTED THIS JOB

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
222 MPT NO.3 INIT.OPEN

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	TIME MIN	DATE	COMMENTS
0.000	333.505	00	38	JAN 15,1975	INITIAL OPEN

1 POINTS REPORTED THIS RUN

JOB NUMBER	DATE OF JOB
SPG-11210-LL	JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER	DATE OF RUN
222 MPT NO.3 SHUT-IN	

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0.000	333.505	00	39	JAN 15,1975	INITIAL SHUTIN
.031	335.407	00	41	JAN 15,1975	
.063	334.906	00	43	JAN 15,1975	
.094	334.773	00	45	JAN 15,1975	
.125	334.739	00	47	JAN 15,1975	
.156	334.773	00	48	JAN 15,1975	
.188	334.806	00	50	JAN 15,1975	
.219	334.873	00	52	JAN 15,1975	
.250	334.973	00	54	JAN 15,1975	
.281	334.906	00	56	JAN 15,1975	
.313	334.939	00	58	JAN 15,1975	
.344	334.973	01	00	JAN 15,1975	
.375	335.040	01	02	JAN 15,1975	
.406	335.040	01	03	JAN 15,1975	
.438	335.006	01	05	JAN 15,1975	
.469	335.073	01	07	JAN 15,1975	
.500	335.140	01	09	JAN 15,1975	END SHUT IN

17 POINTS REPORTED THIS RUN

JOB NUMBER
SFG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
222 MPT NO,3 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0.000	346.118	01	16	JAN 15,1975	FINAL OPEN
.033	337.842	01	18	JAN 15,1975	
.066	336.474	01	20	JAN 15,1975	
.099	336.041	01	22	JAN 15,1975	
.133	335.774	01	24	JAN 15,1975	
.166	335.607	01	26	JAN 15,1975	
.199	335.573	01	28	JAN 15,1975	
.232	335.540	01	30	JAN 15,1975	
.265	335.540	01	32	JAN 15,1975	
.298	335.473	01	34	JAN 15,1975	
.331	335.507	01	36	JAN 15,1975	
.364	335.540	01	38	JAN 15,1975	
.398	335.540	01	40	JAN 15,1975	INJECT 6 GPM
.431	339.711	01	42	JAN 15,1975	DOWN DRILLPIPE
.464	340.845	01	44	JAN 15,1975	
.497	341.413	01	46	JAN 15,1975	
.530	341.713	01	48	JAN 15,1975	
.563	342.447	01	50	JAN 15,1975	
.596	342.013	01	52	JAN 15,1975	
.629	342.147	01	54	JAN 15,1975	
.663	346.051	01	56	JAN 15,1975	INJECT 11 GPM
.696	347.586	01	58	JAN 15,1975	DOWN DRILLPIPE
.729	348.286	02	00	JAN 15,1975	
.762	348.653	02	02	JAN 15,1975	
.795	348.887	02	04	JAN 15,1975	
.828	349.121	02	06	JAN 15,1975	
.861	350.322	02	08	JAN 15,1975	
.895	354.893	02	10	JAN 15,1975	INJECT 20 GPM
.928	360.065	02	12	JAN 15,1975	DOWN DRILLPIPE
.961	362.267	02	14	JAN 15,1975	
.994	363.736	02	16	JAN 15,1975	
1.027	364.136	02	18	JAN 15,1975	
1.060	364.837	02	20	JAN 15,1975	
1.093	363.902	02	22	JAN 15,1975	
1.126	364.637	02	24	JAN 15,1975	
1.160	388.261	02	26	JAN 15,1975	INJECT 40 GPM
1.193	399.806	02	28	JAN 15,1975	DOWN DRILLPIPE
1.226	406.513	02	30	JAN 15,1975	
1.259	410.684	02	32	JAN 15,1975	
1.292	414.488	02	34	JAN 15,1975	

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
222 MPT NO.3 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
1.325	416.823	02	36	JAN 15,1975	
1.358	416.823	02	37	JAN 15,1975	
1.391	422.596	02	39	JAN 15,1975	INJECT 60 GPM
1.425	434.675	02	41	JAN 15,1975	DOWN DRILLPIPE
1.458	441.682	02	43	JAN 15,1975	
1.491	445.353	02	45	JAN 15,1975	
1.524	448.122	02	47	JAN 15,1975	
1.557	450.391	02	49	JAN 15,1975	
1.590	440.247	02	51	JAN 15,1975	
1.623	438.746	02	53	JAN 15,1975	DECLINE
1.657	397.370	02	55	JAN 15,1975	
1.690	389.529	02	57	JAN 15,1975	
1.723	362.634	02	59	JAN 15,1975	
1.756	351.523	03	01	JAN 15,1975	
1.789	346.585	03	03	JAN 15,1975	
1.822	343.982	03	05	JAN 15,1975	
1.855	342.547	03	07	JAN 15,1975	
1.888	341.446	03	09	JAN 15,1975	
1.922	340.612	03	11	JAN 15,1975	
1.955	339.978	03	13	JAN 15,1975	
1.988	339.644	03	15	JAN 15,1975	
2.021	339.311	03	17	JAN 15,1975	
2.054	338.977	03	19	JAN 15,1975	
2.087	338.743	03	21	JAN 15,1975	
2.120	338.576	03	23	JAN 15,1975	
2.153	338.443	03	25	JAN 15,1975	
2.187	338.310	03	27	JAN 15,1975	
2.220	338.109	03	29	JAN 15,1975	
2.253	338.009	03	31	JAN 15,1975	
2.266	337.942	03	33	JAN 15,1975	
2.319	337.876	03	35	JAN 15,1975	
2.352	337.742	03	37	JAN 15,1975	
2.385	337.676	03	39	JAN 15,1975	
2.418	337.642	03	41	JAN 15,1975	
2.452	337.575	03	43	JAN 15,1975	
2.485	337.509	03	45	JAN 15,1975	
2.518	337.442	03	47	JAN 15,1975	
2.551	337.475	03	49	JAN 15,1975	
2.584	337.375	03	51	JAN 15,1975	
2.617	337.309	03	53	JAN 15,1975	

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JOB NUMBER                                                    DATE OF JOB
SPG-11210-LL                                       JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER                                              DATE OF RUN
222     MPT NO,3    FINAL FLOW

                              SPERRY-SUN
              PRECISION SUBSURFACE PRESSURE GAUGE REPORT


   DELTA    PRESSURE                    TIME      DATE            COMMENTS
   TIME      (PSI)                     HR MIN

   2.650     337.309                   03  55 JAN 15,1975
   2.684     337.342                   03  57 JAN 15,1975
   2.717     337.275                   03  59 JAN 15,1975   END FINAL OPEN
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II B-1815

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                     83 POINTS REPORTED THIS RUN
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JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

PREPARED FOR

ATLANTIC RICHFIELD COMPANY

WELL NUMBER	FEDERAL SG-17
FIELD/LEASE	SORGHUM GULCH TRACT CB
COUNTY/PARISH	RIO BLANCO
STATE	COLORADO
TYPE OF TEST	MULTIPLE PACKER DST
REFERENCE ELEV	GROUND LEVEL

ADDITIONAL INFORMATION

THESE DATA FROM POSITION NO, 3 OF A SIX INTERVAL SERIES.

[illegible]TA FROM GAUGE NC. 222 WITH 1400 LB ELEMENT AND PLACED IN DRILL PIPE AT 1158 F

UPPER PACKER WAS SET AT 1147 FT. AND MIDDLE PACKER WAS SET AT 1172 FT.

INITIAL HYDROSTATIC PRESSURE WAS 313.27 PSI

FINAL HYDROSTATIC PRESSURE WAS 313.53 PSI

THIS GAUGE REFERRED TO AS BEING TOP INSIDE

REFERENCE ELEVATION IS 7036 FT.

98 POINTS REPORTED THIS JOB

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
222 MPT NO.3 INIT.OPEN

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR MIN	DATE	COMMENTS
0.000	313,534	05 08	JAN 15,1975	INITIAL OPEN

1 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
222 MPT NO.3 SHUT-IN

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0.000	313.868	05	09	JAN 15,1975	INITIAL CLOSE
.033	314.335	05	11	JAN 15,1975	
.067	314.335	05	13	JAN 15,1975	
.100	314.369	05	15	JAN 15,1975	
.133	314.436	05	17	JAN 15,1975	
.167	314.402	05	19	JAN 15,1975	
.200	314.502	05	21	JAN 15,1975	
.233	314.569	05	23	JAN 15,1975	
.267	314.602	05	25	JAN 15,1975	
.300	314.602	05	27	JAN 15,1975	
.333	314.602	05	29	JAN 15,1975	
.367	314.669	05	31	JAN 15,1975	
.400	314.669	05	33	JAN 15,1975	
.433	314.636	05	35	JAN 15,1975	
.467	314.669	05	37	JAN 15,1975	
.500	314.703	05	39	JAN 15,1975	END SHUT-IN

16 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
222 MPT NO,3 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME		DATE	COMMENTS
		HR	MIN		
0.000	318,809	05	47	JAN 15,1975	FINAL OPEN
,033	315,003	05	49	JAN 15,1975	
,066	314,936	05	51	JAN 15,1975	
,099	314,970	05	53	JAN 15,1975	
,133	314.903	05	55	JAN 15,1975	
.166	314,903	05	57	JAN 15.1975	
,199	314.903	05	59	JAN 15,1975	
,232	314,903	06	01	JAN 15,1975	DOWN DP WITH
,265	315.804	06	03	JAN 15,1975	5 GPM
,298	320.044	06	05	JAN 15,1975	
.331	321.846	06	07	JAN 15,1975	
,365	322.915	06	09	JAN 15,1975	
,398	323.716	06	11	JAN 15,1975	
,431	324.383	06	13	JAN 15,1975	
,464	324,350	06	15	JAN 15,1975	DOWN DP WITH
,497	325,952	06	17	JAN 15,1975	10 GPM
,530	331.160	06	19	JAN 15,1975	
,563	334.164	06	21	JAN 15,1975	
,597	335,967	06	23	JAN 15,1975	
.630	337,335	06	25	JAN 15,1975	
,663	338,437	06	27	JAN 15,1975	
,696	339.338	06	29	JAN 15,1975	
,729	340,440	06	31	JAN 15,1975	DOWN DP WITH
,762	351,656	06	33	JAN 15,1975	20 GPM
,795	359.701	06	35	JAN 15,1975	
,828	365.376	06	37	JAN 15,1975	
,862	369,916	06	39	JAN 15,1975	
,895	373,154	06	41	JAN 15,1975	
.928	375,925	06	43	JAN 15,1975	
.961	378.195	06	45	JAN 15,1975	DOWN DP WITH
.994	391.281	06	47	JAN 15,1975	40 GPM
1,027	404.400	06	49	JAN 15,1975	
1,060	413,012	06	51	JAN 15,1975	
1.094	419,388	06	53	JAN 15,1975	
1,127	424.429	06	55	JAN 15,1975	
1.160	427,934	06	57	JAN 15,1975	
1,193	430,838	06	59	JAN 15,1975	
1.226	435,411	07	01	JAN 15,1975	DOWN DP WITH
1,259	456,175	07	03	JAN 15,1975	60 GPM
1,292	471,130	07	05	JAN 15,1975	OVERFLOW 52GPM

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
222 MPT NO.3 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
1.326	474.101	07	07	JAN 15,1975	
1.359	475.436	07	09	JAN 15,1975	
1.392	476.137	07	11	JAN 15,1975	
1.425	476.905	07	13	JAN 15,1975	
1.458	477.439	07	14	JAN 15,1975	END INJECTION
1.491	446.694	07	16	JAN 15,1975	
1.524	414.414	07	18	JAN 15,1975	
1.558	390.947	07	20	JAN 15,1975	
1.591	378.395	07	22	JAN 15,1975	
1.624	373.421	07	24	JAN 15,1975	
1.657	370.517	07	26	JAN 15,1975	
1.690	367.813	07	28	JAN 15,1975	
1.723	365.143	07	30	JAN 15,1975	
1.756	362.539	07	32	JAN 15,1975	
1.790	360.035	07	34	JAN 15,1975	
1.823	357.632	07	36	JAN 15,1975	
1.856	355.328	07	38	JAN 15,1975	
1.889	352.858	07	40	JAN 15,1975	
1.922	350.621	07	42	JAN 15,1975	
1.955	348.719	07	44	JAN 15,1975	
1.988	346.983	07	46	JAN 15,1975	
2.022	345.414	07	48	JAN 15,1975	
2.055	343.878	07	50	JAN 15,1975	
2.088	342.309	07	52	JAN 15,1975	
2.121	340.841	07	54	JAN 15,1975	
2.154	339.505	07	56	JAN 15,1975	
2.187	338.137	07	58	JAN 15,1975	
2.220	337.169	08	00	JAN 15,1975	
2.254	335.466	08	02	JAN 15,1975	
2.287	334.331	08	04	JAN 15,1975	
2.320	332.929	08	06	JAN 15,1975	
2.353	331.861	08	08	JAN 15,1975	
2.386	330.693	08	10	JAN 15,1975	
2.419	329.791	08	12	JAN 15,1975	
2.452	328.990	08	14	JAN 15,1975	END DECLINE
2.485	328.222	08	16	JAN 15,1975	
2.519	327.454	08	18	JAN 15,1975	
2.552	326.854	08	20	JAN 15,1975	
2.585	323.782	08	22	JAN 15,1975	
2.618	323.349	08	24	JAN 15,1975	

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
222 MPT NO,3 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
2,651	322,915	08	26	JAN 15,1975	END OF TEST

81 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

PREPARED FOR

ATLANTIC RICHFIELD COMPANY

WELL NUMBER	FEDERAL SG-17
FIELD/LEASE	SORGHUM GULCH TRACT CB
COUNTY/PARISH	RIO BLANCO
STATE	COLORADO
TYPE OF TEST	MULTIPLE PACKER DST
REFERENCE ELEV	GROUND LEVEL

ADDITIONAL INFORMATION

THESE DATA FROM POSITION NO, 4 OF A SIX INTERVAL SERIES,

[illegible]TA FROM GAUGE NO, 222 WITH A 1400 LB, ELEMENT + PLACE IN DRILL PIPE AT 1134 F

UPPER PACKER WAS SET AT 1123 FT, AND MIDDLE PACKER WAS SET AT 1148 FT,

INITIAL HYDROSTATIC PRESSURE WAS 302,12 PSI

FINAL HYDROSTATIC PRESSURE WAS 302,95 PSI

THIS GAUGE REFERRED TO AS BEING TOP INSIDE

REFERENCE ELEVATION IS 7036 FT,

104 POINTS REPORTED THIS JOB

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JOB NUMBER                                                  DATE OF JOB
SPG-11210-LL                                  JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER                                            DATE OF RUN
222    MPT NO.3   INIT.OPEN

                              SPERRY-SUN
              PRECISION SUBSURFACE PRESSURE GAUGE REPORT

   DELTA   PRESSURE                 TIME    DATE            COMMENTS
   TIME     (PSI)                  HR MIN

   0,000    304,421                09   30 JAN 15,1975   INITIAL OPEN
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                      1 POINTS REPORTED THIS RUN
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JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
222 MPT NO.3 SHUT-IN

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0.000	304.421	09	31	JAN 15,1975	INITIAL SHUTIN
.033	305.790	09	33	JAN 15,1975	
.067	304.988	09	35	JAN 15,1975	
.100	304.888	09	37	JAN 15,1975	
.133	304.855	09	39	JAN 15,1975	
.167	304.855	09	41	JAN 15,1975	
.200	304.788	09	43	JAN 15,1975	
.233	304.755	09	45	JAN 15,1975	
.267	304.822	09	47	JAN 15,1975	
.300	304.855	09	49	JAN 15,1975	
.333	304.822	09	51	JAN 15,1975	
.367	304.788	09	53	JAN 15,1975	
.400	304.855	09	55	JAN 15,1975	
.433	304.888	09	57	JAN 15,1975	
.467	304.822	09	59	JAN 15,1975	
.500	304.822	10	01	JAN 15,1975	END SHUT-IN

16 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11210-LL

DATE OF JCB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
222 MPT NO.3 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0,000	304.822	10	09	JAN 15,1975	FINAL OPEN
,033	310,229	10	11	JAN 15,1975	TOOL ACTION
,066	308,026	10	13	JAN 15,1975	
,099	306,691	10	15	JAN 15,1975	
,133	305.923	10	17	JAN 15,1975	
,166	305,389	10	19	JAN 15,1975	
,199	305.155	10	21	JAN 15,1975	
,232	304,988	10	23	JAN 15,1975	
,265	304,922	10	25	JAN 15,1975	END OF TCOL
,298	304.922	10	27	JAN 15,1975	ACTION
,331	304,922	10	29	JAN 15,1975	
,365	304,855	10	31	JAN 15,1975	
,398	304.788	10	33	JAN 15,1975	
,431	304,822	10	35	JAN 15,1975	
,464	304,822	10	37	JAN 15,1975	
,497	304,788	10	39	JAN 15,1975	
,530	304,788	10	41	JAN 15,1975	
,563	304,822	10	43	JAN 15,1975	
,597	304,855	10	45	JAN 15,1975	
,630	304.788	10	47	JAN 15,1975	
,663	304,788	10	49	JAN 15,1975	
,696	304,822	10	51	JAN 15,1975	
,729	304,822	10	53	JAN 15,1975	
,762	304,822	10	55	JAN 15,1975	
,795	304,755	10	57	JAN 15,1975	
,828	304.822	10	59	JAN 15,1975	
,862	304,822	11	01	JAN 15,1975	DOWN DP WITH
,895	304,855	11	03	JAN 15,1975	5,27 GPM
,928	311.498	11	05	JAN 15,1975	
,961	317,573	11	07	JAN 15,1975	
,994	322,614	11	09	JAN 15,1975	
1,027	325,685	11	11	JAN 15,1975	
1,060	327,955	11	13	JAN 15,1975	
1,094	329,858	11	15	JAN 15,1975	DOWN DP WITH
1.127	328.756	11	17	JAN 15,1975	11.26 GPM
1,160	342,576	11	19	JAN 15,1975	
1,193	360.936	11	21	JAN 15,1975	
1,226	368,147	11	23	JAN 15,1975	
1,259	371,685	11	25	JAN 15,1975	
1,292	375,324	11	27	JAN 15,1975	

JOB NUMBER
SPG-11210-LL

DATE OF JO
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
222 MPT NO.3 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
1.326	378,462	11	29	JAN 15,1975	
1.359	381.833	11	31	JAN 15,1975	DOWN DP WITH
1,392	395,654	11	33	JAN 15,1975	19.7 GPM
1,425	414.948	11	35	JAN 15,1975	
1,458	432,507	11	36	JAN 15,1975	
1,491	448.263	11	38	JAN 15,1975	
1,524	462,551	11	40	JAN 15,1975	
1,558	475.636	11	42	JAN 15,1975	DOWN DP WITH
1.591	485.284	11	44	JAN 15,1975	13.33 GPM
1,624	487,787	11	46	JAN 15,1975	
1,657	489.190	11	48	JAN 15,1975	
1.690	489,991	11	50	JAN 15,1975	
1.723	490.692	11	52	JAN 15,1975	
1,756	491.192	11	54	JAN 15,1975	
1.790	491,526	11	56	JAN 15,1975	
1.823	491,827	11	58	JAN 15,1975	END INJECTION
1,856	474.234	12	00	JAN 15,1975	
1,889	456.308	12	02	JAN 15,1975	
1,922	440,152	12	04	JAN 15,1975	
1.955	425,430	12	06	JAN 15,1975	
1.988	411,944	12	08	JAN 15,1975	
2.022	399,726	12	10	JAN 15,1975	
2,055	388,443	12	12	JAN 15,1975	
2,088	378,495	12	14	JAN 15,1975	
2,121	369,249	12	16	JAN 15,1975	
2.154	361,003	12	18	JAN 15,1975	
2,187	353,626	12	20	JAN 15,1975	
2,220	347,116	12	22	JAN 15,1975	
2,254	341,041	12	24	JAN 15,1975	
2.287	335,767	12	26	JAN 15,1975	
2.320	330,993	12	28	JAN 15,1975	
2.353	326,887	12	30	JAN 15,1975	
2,386	323.315	12	32	JAN 15,1975	
2,419	320.177	12	34	JAN 15,1975	
2,452	317.306	12	36	JAN 15,1975	
2.485	315.036	12	38	JAN 15,1975	
2,519	313,167	12	40	JAN 15,1975	
2,552	311,598	12	42	JAN 15,1975	
2,585	310,296	12	44	JAN 15,1975	
2,618	309,228	12	46	JAN 15,1975	

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JOB NUMBER                                                    DATE OF JO
SPG-11210-LL                                      JANUARY 14 AND 15, 197

GAUGE/RUN NUMBER                                              DATE OF RU
222     MPT NO.3   FINAL FLOW

                               SPERRY-SUN
                 PRECISION SUBSURFACE PRESSURE GAUGE REPORT

   DELTA    PRESSURE                   TIME     DATE              COMMENTS
   TIME      (PSI)                    HR MIN

   2.651     308.494                  12  48 JAN 15,1975
   2.684     307.859                  12  50 JAN 15,1975
   2.717     307.292                  12  52 JAN 15,1975
   2.751     306.891                  12  54 JAN 15,1975
   2.784     306.658                  12  56 JAN 15,1975
   2.817     306.491                  12  58 JAN 15,1975
   2.850     306.257                  13  00 JAN 15,1975   END OF TEST
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                       87 POINTS REPORTED THIS RUN
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JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

PREPARED FOR

ATLANTIC RICHFIELD COMPANY

WELL NUMBER	FEDERAL SG-17
FIELD/LEASE	SORGHUM GULCH TRACT CB
COUNTY/PARISH	RIO BLANCO
STATE	COLORADO
TYPE OF TEST	MULTIPLE PACKER DST
REFERENCE ELEV	GROUND LEVEL

ADDITIONAL INFORMATION

THESE DATA FROM POSITION NO. 5 OF A SIX INTERVAL SERIES.

[illegible]TA FROM GAUGE NO. 222, WITH A 1400 LB ELEMENT, PLACED IN DRILL PIPE AT 1349 F

UPPER PACKER WAS SET AT 1338 FT. AND MIDDLE PACKER WAS SET AT 1363 FT.

INITIAL HYDROSTATIC PRESSURE WAS 395.92 PSI

FINAL HYDROSTATIC PRESSURE WAS 395.99 PSI

THIS GAUGE REFERRED TO AS BEING TOP INSIDE

REFERENCE ELEVATION IS 7036 FT.

98 POINTS REPORTED THIS JOB

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JOB NUMBER                                                             DATE OF JOB
SPG-11210-LL                                                JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER                                                       DATE OF RUN
222     MPT NO.3   INIT.OPEN

                                  SPERRY-SUN
                  PRECISION SUBSURFACE PRESSURE GAUGE REPORT

    DELTA   PRESSURE                     TIME      DATE               COMMENTS
    TIME     (PSI)                      HR MIN

    0.000    390.312                    14   12 JAN 15,1975   INIT. OPEN
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II B-1829

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                        1 POINTS REPORTED THIS RUN
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JOB NUMBER
SPG-11210-LL

DATE OF JO
JANUARY 14 AND 15, 197

GAUGE/RUN NUMBER
222 MPT NO,3 SHUT-IN

DATE OF RU

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	TIME MIN	DATE	COMMENTS
0,000	390,312	14	13	JAN 15,1975	SHUT-IN
,033	388,744	14	15	JAN 15,1975	
,067	388,443	14	17	JAN 15,1975	
,100	388,343	14	19	JAN 15,1975	
,133	388.310	14	21	JAN 15,1975	
,167	388,143	14	23	JAN 15,1975	
.200	388.043	14	25	JAN 15,1975	
,233	388,009	14	27	JAN 15,1975	
,267	387.942	14	29	JAN 15,1975	
,300	387,842	14	31	JAN 15,1975	
,333	387.742	14	33	JAN 15,1975	
,367	387,742	14	35	JAN 15,1975	
.400	387,675	14	37	JAN 15,1975	
,433	387.642	14	39	JAN 15,1975	
,467	387.575	14	41	JAN 15,1975	
.500	387,575	14	43	JAN 15,1975	END SHUT-IN

16 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
222 MPT NO.3 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0.000	387.575	14	49	JAN 15,1975	FINAL FLOW
.033	377.260	14	51	JAN 15,1975	
.067	382.902	14	53	JAN 15,1975	
.100	384.537	14	55	JAN 15,1975	
.133	385.272	14	57	JAN 15,1975	
.167	385.606	14	59	JAN 15,1975	
.200	385.806	15	01	JAN 15,1975	
.233	386.006	15	03	JAN 15,1975	
.267	386.173	15	05	JAN 15,1975	
.300	386.207	15	07	JAN 15,1975	
.333	386.240	15	09	JAN 15,1975	
.367	386.373	15	11	JAN 15,1975	DOWN DP WITH
.400	388.343	15	13	JAN 15,1975	5.8 GPM
.433	391.047	15	15	JAN 15,1975	
.467	392.148	15	17	JAN 15,1975	
.500	392.683	15	19	JAN 15,1975	
.533	393.117	15	21	JAN 15,1975	
.567	394.786	15	23	JAN 15,1975	
.600	393.551	15	25	JAN 15,1975	DOWN DP WITH
.633	395.320	15	27	JAN 15,1975	10 GPM
.667	397.356	15	29	JAN 15,1975	
.700	398.257	15	31	JAN 15,1975	
.733	398.691	15	33	JAN 15,1975	
.767	399.326	15	35	JAN 15,1975	
.800	399.760	15	37	JAN 15,1975	
.833	400.060	15	39	JAN 15,1975	
.867	400.627	15	41	JAN 15,1975	DOWN DP WITH
.900	405.902	15	43	JAN 15,1975	20.1 GPM
.933	408.639	15	45	JAN 15,1975	
.967	410.408	15	47	JAN 15,1975	
1.000	411.677	15	49	JAN 15,1975	
1.033	412.612	15	51	JAN 15,1975	
1.067	413.379	15	53	JAN 15,1975	
1.100	413.913	15	55	JAN 15,1975	DOWN DP WITH
1.133	416.718	15	57	JAN 15,1975	36.9 GPM
1.167	420.490	15	59	JAN 15,1975	
1.200	428.501	16	01	JAN 15,1975	
1.233	432.140	16	03	JAN 15,1975	
1.267	434.443	16	05	JAN 15,1975	
1.300	435.945	16	07	JAN 15,1975	

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
222 MPT NO,3 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
1.333	436,880	16	09	JAN 15,1975	
1.367	437.948	16	11	JAN 15,1975	DOWN DP WITH
1.400	439,551	16	13	JAN 15,1975	57.8 GPM
1.433	446,060	16	15	JAN 15,1975	
1.467	449.932	16	17	JAN 15,1975	
1.500	451,668	16	19	JAN 15,1975	
1.533	452,570	16	21	JAN 15,1975	
1.567	453.571	16	23	JAN 15,1975	
1,600	454.840	16	25	JAN 15,1975	END INJECTION
1.633	451.568	16	27	JAN 15,1975	
1,667	431.205	16	29	JAN 15,1975	
1.700	418,554	16	31	JAN 15,1975	
1,733	410,575	16	33	JAN 15,1975	
1.767	405,134	16	35	JAN 15,1975	
1,800	401.328	16	37	JAN 15,1975	
1.833	398,558	16	39	JAN 15,1975	
1.867	396.455	16	41	JAN 15,1975	
1.900	395.119	16	43	JAN 15,1975	
1.933	393.717	16	45	JAN 15,1975	
1,967	392,683	16	47	JAN 15,1975	
2.000	391.781	16	49	JAN 15,1975	
2,033	391.147	16	51	JAN 15,1975	
2,067	390,580	16	53	JAN 15,1975	
2,100	390,112	16	55	JAN 15,1975	
2.133	389,678	16	57	JAN 15,1975	
2,167	389,278	16	59	JAN 15,1975	
2,200	388,977	17	01	JAN 15,1975	
2.233	388,710	17	03	JAN 15,1975	
2,267	388,343	17	05	JAN 15,1975	
2.300	388,109	17	07	JAN 15,1975	
2.333	387,942	17	09	JAN 15,1975	
2,367	387,809	17	11	JAN 15,1975	
2.400	387,609	17	13	JAN 15,1975	
2,433	387,508	17	15	JAN 15,1975	
2.467	387.442	17	17	JAN 15,1975	
2.500	387,342	17	19	JAN 15,1975	
2.533	387,175	17	21	JAN 15,1975	
2,567	387,108	17	23	JAN 15,1975	
2,600	387,041	17	25	JAN 15,1975	
2,633	386,941	17	27	JAN 15,1975	

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
222 MPT NO.3 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
2,667	386,841	17	29	JAN 15,1975	END OF TEST

81 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

PREPARED FOR

ATLANTIC RICHFIELD COMPANY

WELL NUMBER	FEDERAL SG-17
FIELD/LEASE	SORGHUM GULCH TRACT CB
COUNTY/PARISH	RIO BLANCO
STATE	COLORADO
TYPE OF TEST	MULTIPLE PACKER DST
REFERENCE ELEV	GROUND LEVEL

ADDITIONAL INFORMATION

THESE DATA FROM POSITION NO. 6 OF A SIX INTERVAL SERIES.

[illegible]ATA FROM GAUGE NO. 222, WITH A 1400 LB ELEMENT, PLACED IN DRILL PIPE AT 1100 F

UPPER PACKER WAS SET AT 1089 FT. AND MIDDLE PACKER WAS SET AT 1114 FT.

INITIAL HYDROSTATIC PRESSURE WAS 286.56 PSI.

FINAL HYDROSTATIC PRESSURE WAS 302.25 PSI

THIS GAUGE REFERRED TO AS BEING TOP INSIDE

REFERENCE ELEVATION IS 7036 FT.

157 POINTS REPORTED THIS JOB

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
222 MPT NO,3 INIT.OPEN

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR MIN	DATE	COMMENTS
0.000	288,898	18 35	JAN 15,1975	INIT. OPEN

1 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
222 MPT NO.3 SHUT-IN

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	TIME MIN	DATE	COMMENTS
0.000	288.898	18	41	JAN 15,1975	INIT. CLOSE
.033	288.932	18	43	JAN 15,1975	
.067	288.965	18	45	JAN 15,1975	
.100	288.898	18	47	JAN 15,1975	
.133	288.898	18	49	JAN 15,1975	
.167	288.898	18	51	JAN 15,1975	
.200	288.898	18	53	JAN 15,1975	
.233	288.932	18	55	JAN 15,1975	
.267	288.865	18	57	JAN 15,1975	
.300	288.932	18	59	JAN 15,1975	
.333	288.898	19	01	JAN 15,1975	
.367	288.932	19	03	JAN 15,1975	
.400	288.898	19	05	JAN 15,1975	
.433	288.865	19	07	JAN 15,1975	
.467	288.932	19	09	JAN 15,1975	
.500	288.965	19	11	JAN 15,1975	END SHUT-IN

16 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
222 MPT NO.3 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0.000	288.965	19	20	JAN 15,1975	START FLOW
.033	370.350	19	22	JAN 15,1975	ON DEPTH NO.6
.066	358.333	19	24	JAN 15,1975	TOOL ACTION
.099	349.219	19	26	JAN 15,1975	
.132	340.807	19	28	JAN 15,1975	
.165	334.131	19	30	JAN 15,1975	
.199	327.187	19	32	JAN 15,1975	
.232	321.179	19	34	JAN 15,1975	
.265	315.804	19	36	JAN 15,1975	
.298	311.298	19	38	JAN 15,1975	
.331	307.125	19	40	JAN 15,1975	
.364	303.653	19	42	JAN 15,1975	
.397	300.849	19	44	JAN 15,1975	
.430	298.579	19	46	JAN 15,1975	
.463	296.409	19	48	JAN 15,1975	
.496	294.941	19	50	JAN 15,1975	
.530	293.705	19	52	JAN 15,1975	
.563	292.604	19	54	JAN 15,1975	
.596	291.769	19	56	JAN 15,1975	
.629	291.001	19	58	JAN 15,1975	
.662	290.467	20	00	JAN 15,1975	
.695	290.000	20	02	JAN 15,1975	
.728	289.800	20	04	JAN 15,1975	
.761	289.399	20	06	JAN 15,1975	
.794	289.366	20	08	JAN 15,1975	
.827	289.232	20	10	JAN 15,1975	
.860	289.199	20	12	JAN 15,1975	
.894	289.132	20	14	JAN 15,1975	
.927	289.032	20	16	JAN 15,1975	
.960	289.032	20	18	JAN 15,1975	
.993	289.032	20	20	JAN 15,1975	
1.026	289.032	20	22	JAN 15,1975	
1.059	288.965	20	24	JAN 15,1975	
1.092	288.965	20	26	JAN 15,1975	DOWN DP WITH
1.125	289.032	20	28	JAN 15,1975	5 GPM
1.158	291.335	20	29	JAN 15,1975	
1.191	303.720	20	31	JAN 15,1975	
1.225	314.836	20	33	JAN 15,1975	
1.258	324.717	20	35	JAN 15,1975	
1.291	333.363	20	37	JAN 15,1975	

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
222 MPT NO,3 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME		DATE	COMMENTS
		HR	MIN		
1.324	341.208	20	39	JAN 15,1975	DOWN DP WITH
1.357	347.650	20	41	JAN 15,1975	10 GPM
1.390	359.501	20	43	JAN 15,1975	
1,423	374,723	20	45	JAN 15,1975	
1.456	389.111	20	47	JAN 15,1975	
1,489	402,030	20	49	JAN 15,1975	
1,522	413,880	20	51	JAN 15,1975	
1.555	425.063	20	53	JAN 15,1975	
1.589	434.777	20	55	JAN 15,1975	
1,622	446.461	20	57	JAN 15,1975	
1,655	430.104	20	59	JAN 15,1975	DOWN DP WITH
1.688	414,548	21	01	JAN 15,1975	20 GPM
1.721	436.413	21	03	JAN 15,1975	
1.754	459.279	21	05	JAN 15,1975	
1.787	470.829	21	07	JAN 15,1975	
1.820	470,996	21	09	JAN 15,1975	
1.853	471.831	21	11	JAN 15,1975	
1.886	475.403	21	13	JAN 15,1975	
1.920	476.972	21	15	JAN 15,1975	
1.953	477.439	21	17	JAN 15,1975	
1,986	477.806	21	19	JAN 15,1975	
2,019	478,641	21	21	JAN 15,1975	STOP INJECTION
2,052	461,750	21	23	JAN 15,1975	START DECLINE
2.085	444.458	21	25	JAN 15,1975	
2.118	428.201	21	27	JAN 15,1975	
2.151	414.848	21	29	JAN 15,1975	
2.184	400.761	21	31	JAN 15,1975	
2.217	387.508	21	33	JAN 15,1975	
2.250	378.595	21	35	JAN 15,1975	
2.284	367,479	21	37	JAN 15,1975	
2.317	357.231	21	39	JAN 15,1975	
2,350	348.218	21	41	JAN 15,1975	
2.383	339,672	21	43	JAN 15,1975	
2,416	332,028	21	45	JAN 15,1975	
2,449	325.185	21	47	JAN 15,1975	
2,482	319.777	21	49	JAN 15,1975	
2.515	315.036	21	51	JAN 15,1975	
2.548	310.396	21	53	JAN 15,1975	
2.581	306.324	21	55	JAN 15,1975	
2,615	302,885	21	57	JAN 15,1975	

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
222 MPT NO.3 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
2.648	300.081	21	59	JAN 15,1975	
2.681	297.745	22	01	JAN 15,1975	
2.714	295.808	22	03	JAN 15,1975	
2.747	294.240	22	05	JAN 15,1975	
2.780	293.004	22	07	JAN 15,1975	
2.813	292.036	22	09	JAN 15,1975	
2.846	291.736	22	11	JAN 15,1975	
2.879	290.734	22	13	JAN 15,1975	
2.912	290.300	22	15	JAN 15,1975	
2.945	290.000	22	17	JAN 15,1975	
2.979	289.800	22	19	JAN 15,1975	
3.012	289.700	22	21	JAN 15,1975	
3.045	289.599	22	23	JAN 15,1975	
3.078	289.433	22	25	JAN 15,1975	DOWN ANNULUS
3.111	289.433	22	27	JAN 15,1975	WITH 20 GPM
3.144	289.332	22	29	JAN 15,1975	
3.177	289.332	22	31	JAN 15,1975	
3.243	289.332	22	35	JAN 15,1975	
3.276	289.332	22	37	JAN 15,1975	
3.309	289.332	22	39	JAN 15,1975	DOWN ANNULUS
3.343	289.366	22	41	JAN 15,1975	WITH 40 GPM
3.376	289.266	22	43	JAN 15,1975	
3.409	289.366	22	45	JAN 15,1975	
3.442	289.433	22	47	JAN 15,1975	
3.475	289.499	22	48	JAN 15,1975	
3.508	289.499	22	50	JAN 15,1975	
3.541	289.566	22	52	JAN 15,1975	
3.574	289.633	22	54	JAN 15,1975	DOWN ANNULUS
3.607	289.666	22	56	JAN 15,1975	WITH 60 GPM
3.640	289.666	22	58	JAN 15,1975	
3.674	289.700	23	00	JAN 15,1975	
3.707	289.833	23	02	JAN 15,1975	
3.740	289.867	23	04	JAN 15,1975	
3.773	289.900	23	06	JAN 15,1975	
3.806	289.900	23	08	JAN 15,1975	
3.839	290.000	23	10	JAN 15,1975	START DECLINE
3.872	290.067	23	12	JAN 15,1975	ON ANNULUS
3.905	290.134	23	14	JAN 15,1975	
3.938	290.033	23	16	JAN 15,1975	
3.971	290.234	23	18	JAN 15,1975	

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
222 MPT NO.3 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
4.004	290.267	23	20	JAN 15,1975	
4.038	290.300	23	22	JAN 15,1975	
4.071	290,300	23	24	JAN 15,1975	
4,104	290,300	23	26	JAN 15,1975	
4,137	290.300	23	28	JAN 15,1975	
4.170	290.300	23	30	JAN 15,1975	
4.203	290,300	23	32	JAN 15,1975	
4,236	290,367	23	34	JAN 15,1975	
4,269	290.367	23	36	JAN 15,1975	
4,302	290.300	23	38	JAN 15,1975	
4.335	290,334	23	40	JAN 15,1975	
4,369	290,401	23	42	JAN 15,1975	
4,402	290.367	23	44	JAN 15,1975	
4,435	290,334	23	46	JAN 15,1975	
4,468	290,334	23	48	JAN 15,1975	
4.501	290.334	23	50	JAN 15,1975	
4.534	290,334	23	52	JAN 15,1975	
4,567	290,267	23	54	JAN 15,1975	
4.600	290,267	23	56	JAN 15,1975	
4,633	290,300	23	58	JAN 15,1975	END OF TEST

140 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

PREPARED FOR

ATLANTIC RICHFIELD COMPANY

WELL NUMBER	FEDERAL SG-17
FIELD/LEASE	SORGHUM GULCH TRACT CB
COUNTY/PARISH	RIO BLANCO
STATE	COLORADO
TYPE OF TEST	MULTIPLE PACKER DST
REFERENCE ELEV	GROUND LEVEL

ADDITIONAL INFORMATION

THESE DATA FROM POSITION NO. 1 OF A SIX INTERVAL SERIES

THIS TEST FROM GAUGE NO. 193 WITH A 1400 LB. ELEMENT

THIS GAUGE RUN AT 1458 FT. (BELOW MIDDLE PACKER WHICH WAS AT 1447 FT.)

AND ABOVE BOTTOM PACKER WHICH WAS AT 1472 FT. FOR THIS TEST.

INITIAL HYDROSTATIC WAS 438.24 PSI

FINAL HYDROSTATIC WAS 435.02 PSI

THIS GAUGE REFERRED TO AS BEING MIDDLE INSIDE.

REFERENCE ELEVATION IS 7036 FT.

110 POINTS REPORTED THIS JOB

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JOB NUMBER                                                   DATE OF JOB
SPG-11210-LL                                    JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER                                             DATE OF RUN
193  MPT  NO. 3  INIT. OPEN                            JANUARY 25, 1975

                          SPERRY-SUN
           PRECISION SUBSURFACE PRESSURE GAUGE REPORT

   DELTA   PRESSURE                TIME    DATE             COMMENTS
   TIME     (PSI)                 HR MIN

   0.000   432.523                 19  35 JAN 14,1975   INIT. OPEN
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1 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
193 MPT NO. 3 SHUT-IN

DATE OF RUN
JANUARY 25, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	TIME MIN	DATE	COMMENTS
0.000	432.523	19	36	JAN 15,1975	SHUT-IN
.033	431.038	19	38	JAN 15,1975	
.067	430.248	19	40	JAN 15,1975	
.100	429.742	19	42	JAN 15,1975	
.133	429.995	19	44	JAN 15,1975	
.167	429.521	19	46	JAN 15,1975	
.200	428.889	19	48	JAN 15,1975	
.233	430.374	19	50	JAN 15,1975	
.267	430.374	19	52	JAN 15,1975	
.300	430.311	19	54	JAN 15,1975	
.333	430.216	19	56	JAN 15,1975	
.367	430.216	19	58	JAN 15,1975	
.400	430.216	20	00	JAN 15,1975	
.433	430.090	20	02	JAN 15,1975	
.467	430.185	20	04	JAN 15,1975	
.500	430.185	20	06	JAN 15,1975	END SHUT-IN

16 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
193 MPT NO. 3 FINAL FLOW

DATE OF RUN
JANUARY 25, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0.000	430.185	20	06	JAN 14,1975	FINAL FLOW
.034	434.829	20	08	JAN 14,1975	
.067	431.796	20	10	JAN 14,1975	
.101	430.532	20	12	JAN 14,1975	
.134	427.815	20	14	JAN 14,1975	END OF TOOL
.168	427.847	20	16	JAN 14,1975	ACTION
.201	428.321	20	18	JAN 14,1975	
.235	428.795	20	20	JAN 14,1975	
.268	429.332	20	22	JAN 14,1975	
.302	429.711	20	24	JAN 14,1975	
.335	429.964	20	26	JAN 14,1975	
.369	430.216	20	28	JAN 14,1975	
.402	430.501	20	30	JAN 14,1975	
.436	430.564	20	32	JAN 14,1975	
.469	430.595	20	34	JAN 14,1975	
.503	430.627	20	36	JAN 14,1975	
.536	430.722	20	38	JAN 14,1975	
.570	430.817	20	40	JAN 14,1975	PULL SOUNDER
.603	430.880	20	42	JAN 14,1975	
.637	430.975	20	44	JAN 14,1975	
.670	431.006	20	46	JAN 14,1975	
.704	431.101	20	48	JAN 14,1975	
.737	431.101	20	50	JAN 14,1975	DOWN DP WITH
.771	431.133	20	52	JAN 14,1975	5.73 GPM
.804	431.259	20	54	JAN 14,1975	
.838	431.480	20	56	JAN 14,1975	
.871	431.606	20	58	JAN 14,1975	
.905	431.796	21	00	JAN 14,1975	
.938	431.954	21	02	JAN 14,1975	
.972	432.080	21	04	JAN 14,1975	DOWN DP WITH
1.005	432.270	21	06	JAN 14,1975	10.13 GPM
1.039	432.428	21	08	JAN 14,1975	
1.072	432.997	21	10	JAN 14,1975	
1.106	433.376	21	12	JAN 14,1975	
1.139	433.534	21	14	JAN 14,1975	
1.173	433.597	21	16	JAN 14,1975	
1.207	434.071	21	18	JAN 14,1975	DOWN DP WITH
1.240	434.292	21	20	JAN 14,1975	20 GPM
1.274	434.260	21	22	JAN 14,1975	
1.307	434.829	21	24	JAN 14,1975	

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
193 MPT NO. 3 FINAL FLOW

DATE OF RUN
JANUARY 25, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
1,341	436,345	21	26	JAN 14,1975	
1.374	436.535	21	28	JAN 14,1975	
1,408	437,009	21	30	JAN 14,1975	
1,441	436.345	21	32	JAN 14,1975	
1.475	435.745	21	34	JAN 14,1975	DOWN DP WITH
1.508	435.587	21	36	JAN 14,1975	32 GPM
1,542	436.409	21	38	JAN 14,1975	
1,575	437,514	21	41	JAN 14,1975	
1,609	437.198	21	43	JAN 14,1975	
1,642	437,735	21	45	JAN 14,1975	
1.676	438.146	21	47	JAN 14,1975	
1.709	438.399	21	49	JAN 14,1975	
1,743	438.652	21	51	JAN 14,1975	DOWN DP WITH
1,776	438.904	21	53	JAN 14,1975	55 GPM
1,810	439.252	21	55	JAN 14,1975	
1.843	440.358	21	57	JAN 14,1975	
1.877	440.263	21	59	JAN 14,1975	
1,910	440.389	22	01	JAN 14,1975	
1,944	441.621	22	03	JAN 14,1975	
1.977	441.179	22	05	JAN 14,1975	START DECLINE
2,011	440.926	22	07	JAN 14,1975	
2,044	439.979	22	09	JAN 14,1975	
2,078	438.146	22	11	JAN 14,1975	
2,111	436.851	22	13	JAN 14,1975	
2,145	435.777	22	15	JAN 14,1975	
2.178	434,861	22	17	JAN 14,1975	
2,212	434.229	22	19	JAN 14,1975	
2.245	433.692	22	21	JAN 14,1975	
2.279	433.249	22	23	JAN 14,1975	
2,312	432.839	22	25	JAN 14,1975	
2,346	432.459	22	27	JAN 14,1975	
2,379	432.175	22	29	JAN 14,1975	
2.413	431.954	22	31	JAN 14,1975	
2.447	431.733	22	33	JAN 14,1975	
2,480	431,575	22	35	JAN 14,1975	
2.514	431.385	22	37	JAN 14,1975	
2,547	431.101	22	39	JAN 14,1975	
2.581	431.101	22	41	JAN 14,1975	
2,614	431.164	22	43	JAN 14,1975	
2,648	431,227	22	45	JAN 14,1975	

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
193 MPT NO, 3 FINAL FLOW

DATE OF RUN
JANUARY 25, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
2,681	431,322	22	47	JAN 14,1975	
2,715	431,417	22	49	JAN 14,1975	
2,748	431,480	22	51	JAN 14,1975	
2,782	431.638	22	53	JAN 14,1975	
2,815	431.670	22	55	JAN 14,1975	
2,849	431,670	22	57	JAN 14,1975	
2,882	431,701	22	59	JAN 14,1975	
2,916	431.670	23	01	JAN 14,1975	
2.949	431,764	23	03	JAN 14,1975	
2,983	431.859	23	05	JAN 14,1975	
3,016	431,954	23	07	JAN 14,1975	
3,050	432,049	23	09	JAN 14,1975	
3,083	432,049	23	11	JAN 14,1975	END TEST

93 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

PREPARED FOR

ATLANTIC RICHFIELD COMPANY

WELL NUMBER	FEDERAL SG-17
FIELD/LEASE	SORGHUM GULCH TRACT CB
COUNTY/PARISH	RIO BLANCO
STATE	COLORADO
TYPE OF TEST	MULTIPLE PACKER DST
REFERENCE ELEV	GROUND LEVEL

ADDITIONAL INFORMATION

THESE DATA FROM POSITION NO. 2 OF A SIX INTERVAL SERIES

THIS TEST FROM GAUGE 193 WITH A 1400 LB. ELEMENT

THIS GAUGE RUN AT 1220 FT. (BELOW MIDDLE PACKER WHICH WAS AT 1209 FT.)

AND ABOVE BOTTOM PACKER SET AT 1234 FT. FOR THIS TEST.

INITIAL HYDROSTATIC PRESSURE 335.25 PSI

FINAL HYDROSTATIC PRESSURE 335.79 PSI

THIS GAUGE REFERRED TO AS BEING MIDDLE INSIDE.

REFERENCE ELEVATION IS 7036 FT.

100 POINTS REPORTED THIS JOB

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JOB NUMBER                                                        DATE OF JOB
SPG-11210-LL                                            JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER                                                  DATE OF RUN
193 MPT NO. 3  INIT. OPEN                                    JANUARY 25, 1975

                              SPERRY-SUN
                PRECISION SUBSURFACE PRESSURE GAUGE REPORT

    DELTA   PRESSURE                     TIME    DATE              COMMENTS
    TIME     (PSI)                      HR MIN

    0.000    337.428                    00  37 JAN 15,1975   INIT. OPEN
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1 POINTS REPORTED THIS RUN

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JOB NUMBER                                                                      DATE OF JOB
SPG-11210-LL                                                        JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER                                                                DATE OF RUN
193     MPT NO.3  SHUT-IN

                                        SPERRY-SUN
                         PRECISION SUBSURFACE PRESSURE GAUGE REPORT

      DELTA     PRESSURE                       TIME      DATE                COMMENTS
      TIME       (PSI)                        HR MIN

      0.000     337.428                       00  39 JAN 15,1975    SHUT-IN
       .033     342.325                       00  41 JAN 15,1975
       .067     341.441                       00  43 JAN 15,1975
       .100     341.251                       00  45 JAN 15,1975
       .133     341.251                       00  47 JAN 15,1975
       .167     341.220                       00  49 JAN 15,1975
       .200     341.251                       00  51 JAN 15,1975
       .233     341.314                       00  53 JAN 15,1975
       .267     341.314                       00  55 JAN 15,1975
       .300     341.346                       00  57 JAN 15,1975
       .333     341.378                       00  59 JAN 15,1975
       .367     341.441                       01  01 JAN 15,1975
       .400     341.504                       01  03 JAN 15,1975
       .433     341.504                       01  05 JAN 15,1975
       .467     341.504                       01  07 JAN 15,1975
       .500     341.535                       01  09 JAN 15,1975    END SHUT-IN
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16 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
193 MPT NO.3 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR MIN	DATE	COMMENTS
0.000	341.535	01 16	JAN 15,1975	FINAL FLOW
.033	354.615	01 18	JAN 15,1975	
.067	344.884	01 20	JAN 15,1975	
.100	343.336	01 22	JAN 15,1975	
.133	342.799	01 24	JAN 15,1975	
.167	342.610	01 26	JAN 15,1975	
.200	342.420	01 28	JAN 15,1975	
.233	342.420	01 30	JAN 15,1975	
.267	342.389	01 32	JAN 15,1975	
.300	342.389	01 34	JAN 15,1975	
.333	342.389	01 36	JAN 15,1975	
.367	342.420	01 38	JAN 15,1975	
.400	342.452	01 40	JAN 15,1975	DOWN DP WITH
.433	342.452	01 42	JAN 15,1975	6 GPM
.467	346.748	01 44	JAN 15,1975	
.500	347.759	01 46	JAN 15,1975	
.533	348.296	01 48	JAN 15,1975	
.567	348.644	01 50	JAN 15,1975	
.600	349.276	01 52	JAN 15,1975	
.633	348.897	01 54	JAN 15,1975	
.667	349.086	01 56	JAN 15,1975	DOWN DP WITH
.700	353.320	01 58	JAN 15,1975	11 GPM
.733	354.710	02 00	JAN 15,1975	
.767	355.278	02 02	JAN 15,1975	
.800	355.752	02 04	JAN 15,1975	
.833	356.068	02 06	JAN 15,1975	
.867	356.226	02 08	JAN 15,1975	
.900	360.681	02 10	JAN 15,1975	DOWN DP WITH
.933	364.219	02 12	JAN 15,1975	20 GPM
.967	368.200	02 14	JAN 15,1975	
1.000	369.937	02 16	JAN 15,1975	
1.033	371.138	02 18	JAN 15,1975	
1.067	371.833	02 20	JAN 15,1975	
1.100	372.402	02 22	JAN 15,1975	
1.133	371.233	02 24	JAN 15,1975	
1.167	378.025	02 26	JAN 15,1975	DOWN DP WITH
1.200	401.056	02 28	JAN 15,1975	40 GPM
1.233	409.049	02 30	JAN 15,1975	
1.267	415.305	02 32	JAN 15,1975	
1.300	419.506	02 34	JAN 15,1975	

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
193 MPT NO.3 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	TIME MIN	DATE	COMMENTS
1,333	422,950	02	36	JAN 15,1975	
1,367	424,498	02	38	JAN 15,1975	
1,400	425.920	02	40	JAN 15,1975	DOWN DP WITH
1,433	435,966	02	42	JAN 15,1975	60 GPM
1,467	445.760	02	44	JAN 15,1975	
1,500	450,973	02	46	JAN 15,1975	
1,533	454,132	02	48	JAN 15,1975	
1,567	457.007	02	50	JAN 15,1975	
1,600	458.903	02	52	JAN 15,1975	
1,633	448,793	02	54	JAN 15,1975	DECLINE
1,667	429.679	02	56	JAN 15,1975	
1,700	396.760	02	58	JAN 15,1975	
1,733	387.029	03	00	JAN 15,1975	
1,767	366.146	03	02	JAN 15,1975	
1,800	357,711	03	04	JAN 15,1975	
1.833	353.636	03	06	JAN 15,1975	
1,867	351.361	03	08	JAN 15,1975	
1,900	349,876	03	10	JAN 15,1975	
1.933	348,865	03	12	JAN 15,1975	
1,967	348.202	03	14	JAN 15,1975	
2.000	347.664	03	16	JAN 15,1975	
2,033	347,317	03	18	JAN 15,1975	
2,067	347.001	03	20	JAN 15,1975	
2,100	346.748	03	22	JAN 15,1975	
2,133	346.464	03	24	JAN 15,1975	
2.167	346.306	03	26	JAN 15,1975	
2,200	346,116	03	28	JAN 15,1975	
2.233	345.990	03	30	JAN 15,1975	
2,267	345.864	03	32	JAN 15,1975	
2,300	345.737	03	34	JAN 15,1975	
2.333	345.674	03	36	JAN 15,1975	
2.367	345.548	03	38	JAN 15,1975	
2,400	345.390	03	40	JAN 15,1975	
2,433	345.421	03	42	JAN 15,1975	
2,467	345.358	03	44	JAN 15,1975	
2,500	345.327	03	46	JAN 15,1975	
2.533	345,232	03	48	JAN 15,1975	
2.567	345.169	03	50	JAN 15,1975	
2,600	345.105	03	52	JAN 15,1975	
2,633	345,042	03	54	JAN 15,1975	

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
193 MPT NO,3 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
2,667	344,979	03	56	JAN 15,1975	
2,700	344,916	03	58	JAN 15,1975	
2,733	344,853	04	00	JAN 15,1975	END TEST

83 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

PREPARED FOR

ATLANTIC RICHFIELD COMPANY

WELL NUMBER	FEDERAL SG-17
FIELD/LEASE	SORGHUM GULCH TRACT CB
COUNTY/PARISH	RIO BLANCO
STATE	COLORADO
TYPE OF TEST	MULTIPLE PACKER DST
REFERENCE ELEV	GROUND LEVEL

ADDITIONAL INFORMATION

THESE DATA FROM POSITION NO. 3 OF A SIX INTERVAL SERIES.

USED GAUGE NO. 193 WITH A 1400 LB ELEMENT IN DRILL PIPE AT 1183 FT.

THIS GAUGE RUN BELOW MIDDLE PACKER WHICH WAS SET AT 1172 FT, AND ABOVE LOWER PACKER WHICH WAS AT 1197 FT.

INITIAL HYDROSTATIC PRESSURE WAS 321.28 PSI

FINAL HYDROSTATIC PRESSURE WAS 321.79 PSI

THIS GAUGE REFERRED TO AS BEING MIDDLE INSIDE.

REFERENCE ELEVATION IS 7036 FT.

98 POINTS REPORTED THIS JOB

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
193 MPT NO.3 INIT OPEN

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	TIME MIN	DATE	COMMENTS
0.000	320.905	05	08	JAN 15,1975	INIT. OPEN

1 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
193 MPT NO.3 SHUT-IN

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	TIME MIN	DATE	COMMENTS
0.000	320.905	05	09	JAN 15,1975	INIT. CLOSE
.033	321.853	05	11	JAN 15,1975	TOOL ACTION
.067	321.632	05	13	JAN 15,1975	
.100	321.569	05	15	JAN 15,1975	
.133	321.569	05	17	JAN 15,1975	
.167	321.569	05	19	JAN 15,1975	
.200	321.537	05	21	JAN 15,1975	
.233	321.506	05	23	JAN 15,1975	
.267	321.537	05	25	JAN 15,1975	
.300	321.537	05	27	JAN 15,1975	
.333	321.569	05	29	JAN 15,1975	
.367	321.537	05	31	JAN 15,1975	
.400	321.506	05	33	JAN 15,1975	
.433	321.506	05	35	JAN 15,1975	
.467	321.506	05	37	JAN 15,1975	
.500	321.506	05	39	JAN 15,1975	END SHUT-IN

16 POINTS REPORTED THIS RUN

JOB NUMBER	DATE OF JOB
8PG-11210-LL	JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER	DATE OF RUN
193 MPT NO.3 FINAL FLOW	

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	TIME MIN	DATE	COMMENTS
0.000	321.506	05	47	JAN 15,1975	FINAL FLOW
.033	322.043	05	49	JAN 15,1975	
.067	322.138	05	51	JAN 15,1975	
.100	322.106	05	53	JAN 15,1975	
.133	322.169	05	55	JAN 15,1975	
.167	322.201	05	57	JAN 15,1975	
.200	322.201	05	59	JAN 15,1975	
.233	322.169	06	01	JAN 15,1975	DOWN DP WITH
.267	322.201	06	03	JAN 15,1975	5 GPM
.300	322.264	06	05	JAN 15,1975	
.333	322.327	06	07	JAN 15,1975	
.367	322.327	06	09	JAN 15,1975	
.400	322.327	06	11	JAN 15,1975	
.433	322.296	06	13	JAN 15,1975	
.467	322.359	06	15	JAN 15,1975	DOWN DP WITH
.500	322.296	06	17	JAN 15,1975	10 GPM
.533	322.359	06	19	JAN 15,1975	
.567	322.390	06	21	JAN 15,1975	
.600	322.359	06	23	JAN 15,1975	
.633	322.359	06	25	JAN 15,1975	
.667	322.359	06	27	JAN 15,1975	
.700	322.359	06	29	JAN 15,1975	
.733	322.390	06	31	JAN 15,1975	DOWN DP WITH
.767	322.485	06	33	JAN 15,1975	20 GPM
.800	322.485	06	35	JAN 15,1975	
.833	322.548	06	37	JAN 15,1975	
.867	322.548	06	39	JAN 15,1975	
.900	322.548	06	41	JAN 15,1975	
.933	322.485	06	43	JAN 15,1975	
.967	322.485	06	45	JAN 15,1975	DOWN DP WITH
1.000	322.580	06	47	JAN 15,1975	40 GPM
1.033	322.643	06	49	JAN 15,1975	
1.067	322.548	06	51	JAN 15,1975	
1.100	322.643	06	53	JAN 15,1975	
1.133	322.675	06	55	JAN 15,1975	
1.167	322.643	06	57	JAN 15,1975	
1.200	322.675	06	59	JAN 15,1975	
1.233	322.675	07	01	JAN 15,1975	DOWN DP WITH
1.267	322.643	07	03	JAN 15,1975	60 GPM
1.300	322.611	07	05	JAN 15,1975	OVERFLOW AT

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
193   MPT NO.3   FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	TIME MIN	DATE	COMMENTS
1.333	322.706	07	07	JAN 15,1975	52 GPM
1.367	322.769	07	09	JAN 15,1975	
1.400	322.833	07	11	JAN 15,1975	
1.433	322.833	07	13	JAN 15,1975	
1.467	322.801	07	15	JAN 15,1975	START DECLINE
1.500	322.738	07	17	JAN 15,1975	
1.533	322.769	07	19	JAN 15,1975	
1.567	322.738	07	21	JAN 15,1975	
1.600	322.706	07	23	JAN 15,1975	
1.633	322.738	07	25	JAN 15,1975	
1.667	322.706	07	27	JAN 15,1975	
1.700	322.706	07	29	JAN 15,1975	
1.733	322.706	07	31	JAN 15,1975	
1.767	322.675	07	33	JAN 15,1975	
1.800	322.675	07	35	JAN 15,1975	
1.833	322.643	07	37	JAN 15,1975	
1.867	322.643	07	39	JAN 15,1975	
1.900	322.580	07	41	JAN 15,1975	
1.933	322.580	07	43	JAN 15,1975	
1.967	322.580	07	45	JAN 15,1975	
2.000	322.548	07	47	JAN 15,1975	
2.033	322.580	07	49	JAN 15,1975	
2.067	322.580	07	51	JAN 15,1975	
2.100	322.580	07	53	JAN 15,1975	
2.133	322.517	07	55	JAN 15,1975	
2.167	322.580	07	57	JAN 15,1975	
2.200	322.580	07	59	JAN 15,1975	
2.233	322.548	08	01	JAN 15,1975	
2.267	322.548	08	03	JAN 15,1975	
2.300	322.517	08	05	JAN 15,1975	
2.333	322.580	08	07	JAN 15,1975	
2.367	322.517	08	09	JAN 15,1975	
2.400	322.548	08	11	JAN 15,1975	
2.433	322.580	08	13	JAN 15,1975	
2.467	322.548	08	15	JAN 15,1975	END DECLINE
2.500	322.580	08	17	JAN 15,1975	
2.533	322.548	08	19	JAN 15,1975	
2.567	322.580	08	21	JAN 15,1975	
2.600	323.275	08	23	JAN 15,1975	PACKER PROBLEM
2.633	322.896	08	25	JAN 15,1975	

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JOB NUMBER                                                        DATE OF JOB
SPG-11210-LL                                           JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER                                                  DATE OF RUN
193     MPT NO.3   FINAL FLOW

                              SPERRY-SUN
                PRECISION SUBSURFACE PRESSURE GAUGE REPORT

       DELTA    PRESSURE                  TIME      DATE             COMMENTS
       TIME      (PSI)                   HR MIN

       2,667    322,675                  08  27 JAN 15,1975     END TEST
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                    81 POINTS REPORTED THIS RUN
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JOB NUMBER	DATE OF JOB
SPG-11210-LL	JANUARY 14 AND 15, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

PREPARED FOR

ATLANTIC RICHFIELD COMPANY

WELL NUMBER	FEDERAL SG-17
FIELD/LEASE	SORGHUM GULCH TRACT CB
COUNTY/PARISH	RIO BLANCO
STATE	COLORADO
TYPE OF TEST	MULTIPLE PACKER DST
REFERENCE ELEV	GROUND LEVEL

ADDITIONAL INFORMATION

THESE DATA FROM POSITION NO. 4 OF A SIX INTERVAL SERIES.

USED GAUGE NO. 193 WITH A 1400 LB. ELEMENT IN DRILL PIPE AT 1159 FT.

THIS GAUGE RUN BELOW MIDDLE PACKER WHICH WAS SET AT 1148 FT. AND ABOVE LOWER PACKER WHICH WAS AT 1173 FT.

INITIAL HYDROSTATIC PRESSURE WAS 310.13 PSI

FINAL HYDROSTATIC PRESSURE WAS 311.78 PSI

THIS GAUGE REFERRED TO AS BEING MIDDLE INSIDE.

REFERENCE ELEVATION IS 7036 FT.

103 POINTS REPORTED THIS JOB

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JOB NUMBER                                                              DATE OF JOB
SPG-11210-LL                                                  JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER                                                        DATE OF RUN
193    MPT NO.3   INIT, OPEN

                                    SPERRY-SUN
                       PRECISION SUBSURFACE PRESSURE GAUGE REPORT

     DELTA   PRESSURE                     TIME     DATE              COMMENTS
     TIME    (PSI)                       HR MIN

     0,000   312,754                     09  30 JAN 15.1975   INIT, OPEN
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                              1 POINTS REPORTED THIS RUN
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JOB NUMBER                                                              DATE OF JOB
SPG-11210-LL                                               JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER                                                        DATE OF RUN
193     MPT NO.3    SHUT-IN

                                  SPERRY-SUN
                  PRECISION SUBSURFACE PRESSURE GAUGE REPORT

    DELTA    PRESSURE                   TIME      DATE             COMMENTS
    TIME      (PSI)                    HR MIN

    0,000    312,754                   09  31 JAN 15,1975   INIT. CLOSE
     ,033    313,765                   09  33 JAN 15,1975   TOOL ACTION
     ,067    313,228                   09  35 JAN 15,1975
     ,100    313,070                   09  37 JAN 15,1975
     ,133    313.007                   09  39 JAN 15,1975
     ,167    312.944                   09  41 JAN 15,1975
     ,200    312.976                   09  43 JAN 15,1975
     ,233    312,944                   09  45 JAN 15,1975
     ,267    312,944                   09  47 JAN 15,1975
     ,300    312,976                   09  49 JAN 15,1975
     ,333    313,039                   09  51 JAN 15,1975
     ,367    313,039                   09  53 JAN 15,1975
     ,400    312,976                   09  55 JAN 15,1975
     ,433    313.070                   09  57 JAN 15,1975
     ,467    312,976                   09  59 JAN 15,1975
     ,500    312,976                   10  01 JAN 15,1975   END SHUT-IN
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                     16 POINTS REPORTED THIS RUN

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JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
193 MPT NO.3 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0.000	312.976	10	09	JAN 15,1975	FINAL OPEN
.034	317.146	10	11	JAN 15,1975	TOOL ACTION
.067	315.314	10	13	JAN 15,1975	
.101	314.145	10	15	JAN 15,1975	
.134	313.607	10	17	JAN 15,1975	
.168	313.070	10	19	JAN 15,1975	
.201	312.944	10	21	JAN 15,1975	
.235	312.786	10	23	JAN 15,1975	
.268	312.786	10	25	JAN 15,1975	
.302	312.912	10	27	JAN 15,1975	
.335	312.912	10	29	JAN 15,1975	END RECOVERY
.369	312.754	10	31	JAN 15,1975	
.402	312.912	10	33	JAN 15,1975	
.436	312.912	10	35	JAN 15,1975	
.469	312.912	10	37	JAN 15,1975	
.503	312.912	10	39	JAN 15,1975	
.536	312.976	10	41	JAN 15,1975	
.570	312.818	10	43	JAN 15,1975	
.604	312.849	10	45	JAN 15,1975	
.637	312.818	10	47	JAN 15,1975	
.671	312.912	10	49	JAN 15,1975	
.704	312.849	10	51	JAN 15,1975	
.738	312.912	10	53	JAN 15,1975	
.771	312.944	10	55	JAN 15,1975	
.805	312.786	10	57	JAN 15,1975	
.838	312.944	10	59	JAN 15,1975	DOWN DP WITH
.872	312.944	11	01	JAN 15,1975	5.27 GPM
.905	316.893	11	03	JAN 15,1975	
.939	323.338	11	05	JAN 15,1975	
.972	328.740	11	07	JAN 15,1975	
1.006	332.626	11	09	JAN 15,1975	
1.039	334.743	11	11	JAN 15,1975	
1.073	336.986	11	13	JAN 15,1975	
1.106	337.681	11	15	JAN 15,1975	DOWN DP WITH
1.140	343.305	11	17	JAN 15,1975	11.26 GPM
1.174	362.008	11	19	JAN 15,1975	
1.207	375.245	11	21	JAN 15,1975	
1.241	378.689	11	23	JAN 15,1975	
1.274	382.385	11	25	JAN 15,1975	
1.308	385.860	11	27	JAN 15,1975	

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
193 MPT NO.3 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
1,341	389,399	11	29	JAN 15,1975	DOWN DP WITH
1.375	399.287	11	31	JAN 15,1975	19.7 GPM
1,408	418.369	11	33	JAN 15,1975	
1,442	436,724	11	36	JAN 15,1975	
1.475	453.279	11	38	JAN 15,1975	
1,509	467,496	11	40	JAN 15,1975	
1.542	480.512	11	42	JAN 15,1975	
1,576	492.865	11	44	JAN 15,1975	OVERFLOW AT
1,609	496.056	11	46	JAN 15,1975	13.33 GPM
1.643	497,604	11	48	JAN 15,1975	
1,676	498.425	11	50	JAN 15,1975	
1,710	499.152	11	52	JAN 15,1975	
1,744	499,752	11	54	JAN 15,1975	
1,777	500,226	11	56	JAN 15,1975	
1,811	500.573	11	58	JAN 15,1975	
1.844	488.158	12	00	JAN 15,1975	DECLINE START
1.878	469.707	12	02	JAN 15,1975	
1,911	453.216	12	04	JAN 15,1975	
1.945	437.735	12	06	JAN 15,1975	
1,978	423,771	12	08	JAN 15,1975	
2.012	411.198	12	10	JAN 15,1975	
2.045	399.951	12	12	JAN 15,1975	
2.079	389,746	12	14	JAN 15,1975	
2.112	380.268	12	16	JAN 15,1975	
2.146	371,454	12	18	JAN 15,1975	
2,179	363.650	12	20	JAN 15,1975	
2.213	356.700	12	22	JAN 15,1975	
2.246	350.413	12	24	JAN 15,1975	
2,280	345,074	12	26	JAN 15,1975	
2.314	340.209	12	28	JAN 15,1975	
2.347	335,786	12	30	JAN 15,1975	
2.381	332,121	12	32	JAN 15,1975	
2,414	328,962	12	34	JAN 15,1975	
2,448	326.213	12	36	JAN 15,1975	
2.481	323.780	12	38	JAN 15,1975	
2.515	321.853	12	40	JAN 15,1975	
2,548	320,147	12	42	JAN 15,1975	
2,582	318,757	12	44	JAN 15,1975	
2,615	317.715	12	46	JAN 15,1975	
2,649	316,830	12	48	JAN 15,1975	

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
193   MPT NO.3   FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
2.682	316.230	12	50	JAN 15,1975	
2.716	315.756	12	52	JAN 15,1975	
2.749	315.377	12	54	JAN 15,1975	
2.783	315.061	12	56	JAN 15,1975	
2.816	314.808	12	58	JAN 15,1975	
2.850	314.618	13	00	JAN 15,1975	END TEST

86 POINTS REPORTED THIS RUN

JOB NUMBER	DATE OF JOB
SPG-11210-LL	JANUARY 14 AND 15, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

PREPARED FOR

ATLANTIC RICHFIELD COMPANY

WELL NUMBER	FEDERAL SG-17
FIELD/LEASE	SORGHUM GULCH TRACT CB
COUNTY/PARISH	RIO BLANCO
STATE	COLORADO
TYPE OF TEST	MULTIPLE PACKER DST
REFERENCE ELEV	GROUND LEVEL

ADDITIONAL INFORMATION

THESE DATA FROM POSITION NO. 5 OF A SIX INTERVAL SERIES.

USED GAUGE NO. 193 WITH A 1400 LB. ELEMENT IN DRILL PIPE AT 1374 FT.

THIS GAUGE RUN BELOW MIDDLE PACKER WHICH WAS SET AT 1363 FT. AND ABOVE LOWER PACKER WHICH WAS AT 1388 FT.

INITIAL HYDROSTATIC PRESSURE WAS 403.52 PSI

FINAL HYDROSTATIC PRESSURE WAS 403.71 PSI

THIS GAUGE REFERRED TO AS BEING MIDDLE INSIDE.

REFERENCE ELEVATION IS 7036 FT.

98 POINTS REPORTED THIS JOB

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JOB NUMBER                                                              DATE OF JOB
SPG-11210-LL                                                  JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER                                                        DATE OF RUN
193    MPT NO,3   INIT,OPEN

                                   SPERRY-SUN
                     PRECISION SUBSURFACE PRESSURE GAUGE REPORT

    DELTA   PRESSURE                    TIME     DATE             COMMENTS
    TIME     (PSI)                     HR MIN

    0,000   398,529                    14  12 JAN 15,1975   INIT. OPEN
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                           1 POINTS REPORTED THIS RUN
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JOB NUMBER SPG-11210-LL	DATE OF JOB JANUARY 14 AND 15, 1975
GAUGE/RUN NUMBER 193 MPT NO.3 SHUT-IN	DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	TIME MIN	DATE	COMMENTS
0,000	398.529	14	13	JAN 15,1975	INIT. SHUT-IN
,033	396,633	14	15	JAN 15,1975	
,067	396.159	14	17	JAN 15,1975	
.100	395.938	14	19	JAN 15,1975	
.133	395,843	14	21	JAN 15,1975	
.167	395,812	14	23	JAN 15,1975	
.200	395,780	14	25	JAN 15,1975	
,233	395,654	14	27	JAN 15,1975	
,267	395,654	14	29	JAN 15,1975	
.300	395.654	14	31	JAN 15,1975	
,333	395.654	14	33	JAN 15,1975	
.367	395.654	14	35	JAN 15,1975	
.400	395,559	14	37	JAN 15,1975	
.433	395.528	14	39	JAN 15,1975	
,467	395.528	14	41	JAN 15,1975	
,500	395,528	14	43	JAN 15,1975	END SHUT-IN

16 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
193 MPT NO.3 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0.000	395.528	14	49	JAN 15,1975	FINAL FLOW
.033	379.415	14	51	JAN 15,1975	
.067	389.209	14	53	JAN 15,1975	
.100	391.926	14	55	JAN 15,1975	
.133	392.937	14	57	JAN 15,1975	
.167	393.442	14	59	JAN 15,1975	
.200	393.790	15	01	JAN 15,1975	
.233	394.043	15	03	JAN 15,1975	END RECOVERY
.267	394.137	15	05	JAN 15,1975	
.300	394.201	15	07	JAN 15,1975	
.333	394.232	15	09	JAN 15,1975	
.367	394.327	15	11	JAN 15,1975	DOWN DP WITH
.400	394.517	15	13	JAN 15,1975	5.8 GPM
.433	398.150	15	15	JAN 15,1975	
.467	399.729	15	17	JAN 15,1975	
.500	400.424	15	19	JAN 15,1975	
.533	400.898	15	21	JAN 15,1975	
.567	402.004	15	23	JAN 15,1975	
.600	401.435	15	25	JAN 15,1975	DOWN DP WITH
.633	402.036	15	27	JAN 15,1975	10 GPM
.667	404.531	15	29	JAN 15,1975	
.700	405.700	15	31	JAN 15,1975	
.733	406.395	15	33	JAN 15,1975	
.767	406.901	15	35	JAN 15,1975	
.800	407.312	15	37	JAN 15,1975	
.833	407.691	15	39	JAN 15,1975	
.867	407.975	15	41	JAN 15,1975	DOWN DP WITH
.900	412.019	15	43	JAN 15,1975	20.1 GPM
.933	415.905	15	45	JAN 15,1975	
.967	417.958	15	47	JAN 15,1975	
1.000	419.222	15	49	JAN 15,1975	
1.033	420.201	15	51	JAN 15,1975	
1.067	421.118	15	53	JAN 15,1975	
1.100	421.750	15	55	JAN 15,1975	DOWN DP WITH
1.133	422.824	15	57	JAN 15,1975	36.9 GPM
1.167	425.762	15	59	JAN 15,1975	
1.200	435.208	16	01	JAN 15,1975	
1.233	439.663	16	03	JAN 15,1975	
1.267	441.906	16	05	JAN 15,1975	
1.300	443.833	16	07	JAN 15,1975	

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
193 MPT NO.3 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
1,333	444,812	16	09	JAN 15,1975	
1,367	445,950	16	11	JAN 15,1975	DOWN DP WITH
1,400	447,150	16	13	JAN 15,1975	57,8 GPM
1,433	454,227	16	15	JAN 15,1975	
1,467	458,050	16	17	JAN 15,1975	
1,500	459,945	16	19	JAN 15,1975	
1,533	460,672	16	21	JAN 15,1975	
1,567	461.651	16	23	JAN 15,1975	
1,600	462,662	16	25	JAN 15,1975	
1,633	461,177	16	27	JAN 15,1975	START DECLINE
1,667	441,084	16	29	JAN 15,1975	
1,700	427.752	16	31	JAN 15,1975	
1,733	419,443	16	33	JAN 15,1975	
1,767	413.725	16	35	JAN 15,1975	
1,800	409,713	16	37	JAN 15,1975	
1,833	406,901	16	39	JAN 15,1975	
1.867	404.784	16	41	JAN 15,1975	
1,900	403.205	16	43	JAN 15,1975	
1,933	402.036	16	45	JAN 15,1975	
1,967	401,088	16	47	JAN 15,1975	
2,000	400,172	16	49	JAN 15,1975	
2,033	399,224	16	51	JAN 15,1975	
2.067	398.845	16	53	JAN 15,1975	
2.100	398,371	16	55	JAN 15,1975	
2,133	397,960	16	57	JAN 15,1975	
2,167	397.549	16	59	JAN 15,1975	
2,200	397.202	17	01	JAN 15,1975	
2,233	396.981	17	03	JAN 15,1975	
2.267	396.760	17	05	JAN 15,1975	
2,300	396.507	17	07	JAN 15,1975	
2.333	396,349	17	09	JAN 15,1975	
2,367	396,191	17	11	JAN 15,1975	
2,400	396.096	17	13	JAN 15,1975	
2,433	395.938	17	15	JAN 15,1975	
2,467	395.812	17	17	JAN 15,1975	
2,500	395,749	17	19	JAN 15,1975	
2,533	395,685	17	21	JAN 15,1975	
2,567	395.622	17	23	JAN 15,1975	
2,600	395,496	17	25	JAN 15,1975	
2,633	395,401	17	27	JAN 15,1975	

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JOB NUMBER                                                              DATE OF JOB
SPG-11210-LL                                               JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER                                                        DATE OF RUN
193     MPT NO.3   FINAL FLOW

                                  SPERRY-SUN
                    PRECISION SUBSURFACE PRESSURE GAUGE REPORT

    DELTA    PRESSURE                          TIME      DATE              COMMENTS
    TIME      (PSI)                           HR MIN

    2.667    395.370                          17  29 JAN 15,1975   END TEST
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                        81 POINTS REPORTED THIS RUN
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JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

PREPARED FOR

ATLANTIC RICHFIELD COMPANY

WELL NUMBER	FEDERAL SG-17
FIELD/LEASE	SORGHUM GULCH TRACT CB
COUNTY/PARISH	RIO BLANCO
STATE	COLORADO
TYPE OF TEST	MULTIPLE PACKER DST
REFERENCE ELEV	GROUND LEVEL

ADDITIONAL INFORMATION

THESE DATA FROM POSITION NO. 6 OF A SIX INTERVAL SERIES.

USED GAUGE NO. 193 WITH A 1400 LB. ELEMENT IN DRILL PIPE AT 1125 FT.

THIS GAUGE WAS RUN BELOW MIDDLE PACKER WHICH WAS SET AT 1114 FT. AND ABOVE LOWER PACKER WHICH WAS AT 1139 FT.

INITIAL HYDROSTATIC PRESSURE WAS 294.46 PSI

FINAL HYDROSTATIC PRESSURE WAS 295.82 PSI

THIS GAUGE REFERRED TO AS BEING MIDDLE INSIDE.

REFERENCE ELEVATION IS 7036 FT.

155 POINTS REPORTED THIS JOB

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JOB NUMBER                                                             DATE OF JOB
SPG-11210-LL                                             JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER                                                       DATE OF RUN
193     MPT NO,3    INIT,OPEN

                                SPERRY-SUN
                  PRECISION SUBSURFACE PRESSURE GAUGE REPORT

      DELTA    PRESSURE                   TIME     DATE             COMMENTS
      TIME      (PSI)                    HR MIN

      0,000     295,726                  18  40 JAN 15,1975    INIT, OPEN
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                        1 POINTS REPORTED THIS RUN
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JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
193 MPT NO,3 SHUT-IN

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0,000	295,726	18	41	JAN 15,1975	INIT, CLOSE
,033	297,084	18	43	JAN 15,1975	
,067	296.958	18	45	JAN 15,1975	
,100	296,990	18	47	JAN 15,1975	
,133	296,895	18	49	JAN 15,1975	
,167	296.800	18	51	JAN 15,1975	
,200	296,895	18	53	JAN 15,1975	
,233	296.958	18	55	JAN 15,1975	
,267	297,021	18	57	JAN 15,1975	
,300	297,021	18	59	JAN 15,1975	
,333	296,990	19	01	JAN 15,1975	
,367	297.084	19	03	JAN 15,1975	
,400	297,084	19	05	JAN 15,1975	
,433	297,084	19	07	JAN 15,1975	
,467	297,148	19	09	JAN 15,1975	
,500	297,148	19	11	JAN 15,1975	END SHUT-IN

16 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
193 MPT NO,3 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	TIME MIN	DATE	COMMENTS
0,000	297,148	19	20	JAN 15,1975	FINAL FLOW
,034	298,885	19	22	JAN 15,1975	
,068	297,464	19	24	JAN 15,1975	
,101	297,495	19	26	JAN 15,1975	
,135	297.464	19	28	JAN 15,1975	
,169	297,495	19	30	JAN 15,1975	
,203	297.464	19	32	JAN 15,1975	
,237	297,495	19	34	JAN 15,1975	
,271	297.400	19	36	JAN 15,1975	
,304	297.400	19	38	JAN 15,1975	
,338	297.337	19	40	JAN 15,1975	
,372	297.369	19	42	JAN 15,1975	
,406	297.337	19	44	JAN 15,1975	
,440	297.306	19	46	JAN 15,1975	
,473	297.211	19	48	JAN 15,1975	
,507	297,306	19	50	JAN 15,1975	
.541	297.337	19	52	JAN 15,1975	
,575	297,274	19	54	JAN 15,1975	
,609	297.211	19	57	JAN 15,1975	
,643	297.337	19	59	JAN 15,1975	
,676	297.274	20	01	JAN 15,1975	
,710	297,274	20	03	JAN 15,1975	
,744	297,116	20	05	JAN 15,1975	
,778	297.274	20	07	JAN 15,1975	
,812	297.211	20	09	JAN 15,1975	
,845	297.116	20	11	JAN 15,1975	
,879	297,179	20	13	JAN 15,1975	
,913	297,274	20	15	JAN 15,1975	
,947	297.274	20	17	JAN 15,1975	
,981	297.211	20	19	JAN 15,1975	
1,015	297.242	20	21	JAN 15,1975	
1,048	297.369	20	23	JAN 15,1975	
1,082	297,337	20	25	JAN 15,1975	START DOWN DP
1,116	297,306	20	27	JAN 15,1975	WITH 5 GPM
1,150	297,464	20	29	JAN 15,1975	
1,184	297.527	20	31	JAN 15,1975	
1,218	297,622	20	33	JAN 15,1975	
1,251	297.685	20	35	JAN 15,1975	
1,285	297.622	20	37	JAN 15,1975	
1,319	297,748	20	39	JAN 15,1975	DOWN DP WITH

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
193 MPT NO.3 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
1,353	297,843	20	41	JAN 15,1975	10 GPM
1,387	297,969	20	43	JAN 15,1975	
1,420	298,064	20	45	JAN 15,1975	
1,454	298,064	20	47	JAN 15,1975	
1,488	298,095	20	49	JAN 15,1975	
1,522	298,064	20	51	JAN 15,1975	
1,556	298,095	20	53	JAN 15,1975	
1,590	298,127	20	55	JAN 15,1975	
1,623	298.127	20	57	JAN 15,1975	
1,657	298,127	20	59	JAN 15,1975	DOWN DP WITH
1,691	298.032	21	01	JAN 15,1975	20 GPM
1,725	298,222	21	03	JAN 15,1975	
1,759	298,222	21	06	JAN 15,1975	
1,792	298,222	21	08	JAN 15,1975	OVERFLOW AT
1,826	298.285	21	10	JAN 15,1975	11 GPM
1,860	298.317	21	12	JAN 15,1975	
1.894	298.317	21	14	JAN 15,1975	
1,928	298,317	21	16	JAN 15,1975	
1,962	298.285	21	18	JAN 15,1975	
1,995	298.411	21	20	JAN 15,1975	
2,029	298.253	21	22	JAN 15,1975	START DECLINE
2,063	298,253	21	24	JAN 15,1975	
2,097	298,285	21	26	JAN 15,1975	
2,131	298.285	21	28	JAN 15,1975	
2,164	298.222	21	30	JAN 15,1975	
2,198	298.190	21	32	JAN 15,1975	
2,232	298.159	21	34	JAN 15,1975	
2,266	298.159	21	36	JAN 15,1975	
2,300	298,127	21	38	JAN 15,1975	
2.334	298.095	21	40	JAN 15,1975	
2,367	298.095	21	42	JAN 15,1975	
2,401	298.064	21	44	JAN 15,1975	
2,435	297.969	21	46	JAN 15,1975	
2.469	297.906	21	48	JAN 15,1975	
2.503	297,937	21	50	JAN 15,1975	
2.536	297,874	21	52	JAN 15,1975	
2.570	297,874	21	54	JAN 15,1975	
2,604	297.780	21	56	JAN 15,1975	
2,638	297,780	21	58	JAN 15,1975	
2.672	297,780	22	00	JAN 15,1975	

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
193 MPT NO.3 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
2.706	297.558	22	02	JAN 15,1975	
2.739	297.685	22	04	JAN 15,1975	
2.773	297.716	22	06	JAN 15,1975	
2.807	297.716	22	08	JAN 15,1975	
2.841	297.716	22	10	JAN 15,1975	
2.875	297.685	22	12	JAN 15,1975	
2.909	297.622	22	15	JAN 15,1975	
2.942	297.622	22	17	JAN 15,1975	
2.976	297.590	22	19	JAN 15,1975	
3.010	297.590	22	21	JAN 15,1975	
3.044	297.558	22	23	JAN 15,1975	
3.078	297.653	22	25	JAN 15,1975	DOWN ANNULUS
3.111	297.590	22	27	JAN 15,1975	WITH 20 GPM
3.145	297.590	22	29	JAN 15,1975	
3.179	297.622	22	31	JAN 15,1975	
3.213	297.590	22	33	JAN 15,1975	
3.247	297.622	22	35	JAN 15,1975	
3.281	297.622	22	37	JAN 15,1975	
3.314	297.590	22	39	JAN 15,1975	DOWN ANNULUS
3.348	297.590	22	41	JAN 15,1975	WITH 40 GPM
3.382	297.622	22	43	JAN 15,1975	
3.416	297.622	22	45	JAN 15,1975	
3.450	297.558	22	47	JAN 15,1975	
3.483	297.558	22	49	JAN 15,1975	
3.517	297.558	22	51	JAN 15,1975	
3.551	297.622	22	53	JAN 15,1975	
3.585	297.622	22	55	JAN 15,1975	DOWN ANNULUS
3.619	297.653	22	57	JAN 15,1975	WITH 60 GPM
3.653	297.622	22	59	JAN 15,1975	
3.686	297.558	23	01	JAN 15,1975	
3.720	297.495	23	03	JAN 15,1975	
3.754	297.685	23	05	JAN 15,1975	
3.788	297.716	23	07	JAN 15,1975	
3.822	297.685	23	09	JAN 15,1975	START DECLINE
3.855	297.748	23	11	JAN 15,1975	AFTER ANNULUS
3.889	297.748	23	13	JAN 15,1975	INJECTION
3.923	297.716	23	15	JAN 15,1975	
3.957	297.716	23	17	JAN 15,1975	
3.991	297.780	23	19	JAN 15,1975	
4.025	297.780	23	21	JAN 15,1975	

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
193 MPT NO.3 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	TIME MIN	DATE	COMMENTS
4.058	297.748	23	24	JAN 15,1975	
4.092	297.748	23	26	JAN 15,1975	
4.126	297.843	23	28	JAN 15,1975	
4.160	297.843	23	30	JAN 15,1975	
4.194	297.748	23	32	JAN 15,1975	
4.227	297.653	23	34	JAN 15,1975	
4.261	297.748	23	36	JAN 15,1975	
4.295	297.874	23	38	JAN 15,1975	
4.329	297.748	23	40	JAN 15,1975	
4.363	297.716	23	42	JAN 15,1975	
4.397	297.780	23	44	JAN 15,1975	
4.430	297.843	23	46	JAN 15,1975	
4.464	297.843	23	48	JAN 15,1975	
4.498	297.843	23	50	JAN 15,1975	
4.532	297.780	23	52	JAN 15,1975	
4.566	297.874	23	54	JAN 15,1975	
4.600	297.874	23	56	JAN 15,1975	
4.633	297.874	23	58	JAN 15,1975	END TEST

138 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

PREPARED FOR

ATLANTIC RICHFIELD COMPANY

WELL NUMBER	FEDERAL SG-17
FIELD/LEASE	SORGHUM GULCH TRACT CB
COUNTY/PARISH	RIO BLANCO
STATE	COLORADO
TYPE OF TEST	MULTIPLE PACKER DST
REFERENCE ELEV	GROUND LEVEL

ADDITIONAL INFORMATION

THESE DATA FROM POSITION NO. 1 OF A SIX INTERVAL SERIES.

USED GAUGE NO. 71 WITH 1000 LB. ELEMENT IN ANNULUS, AT 1384 FT.

UPPER PACKER WAS SET AT 1422 FT.

INITIAL HYDROSTATIC PRESSURE WAS 412.18 PSI

FINAL HYDROSTATIC PRESSURE WAS 413.61 PSI

THIS GAUGE REFERRED TO AS BEING TOP OUTSIDE

REFERENCE ELEVATION IS 7036 FT.

107 POINTS REPORTED THIS JOB

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JOB NUMBER                                                        DATE OF JOB
SPG-11210-LL                                        JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER                                                  DATE OF RUN
71      MPT NO,3  INIT,OPEN

                             SPERRY-SUN
             PRECISION SUBSURFACE PRESSURE GAUGE REPORT

    DELTA   PRESSURE                  TIME     DATE              COMMENTS
    TIME     (PSI)                   HR MIN

    0,000    412,279                 19  35 JAN 14,1975    INITIAL OPEN
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II B-1879

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1 POINTS REPORTED THIS RUN
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JOB NUMBER                                                  DATE OF JOB
SPG-11210-LL                                    JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER                                            DATE OF RUN
71      MPT NO,3  INIT,CLOSE

                              SPERRY-SUN
                PRECISION SUBSURFACE PRESSURE GAUGE REPORT

   DELTA    PRESSURE                  TIME      DATE            COMMENTS
   TIME      (PSI)                   HR MIN

   0,000    412,279                  19  36 JAN 14,1975    SHUT-IN
    ,033    408,751                  19  38 JAN 14,1975
    ,067    409,320                  19  40 JAN 14,1975
    ,100    410.172                  19  42 JAN 14,1975
    ,133    410,740                  19  44 JAN 14,1975
    ,167    411,214                  19  46 JAN 14,1975
    ,200    411.640                  19  48 JAN 14,1975
    ,233    411,924                  19  50 JAN 14,1975
    ,267    412,208                  19  52 JAN 14,1975
    ,300    412,398                  19  54 JAN 14,1975
    ,333    412.492                  19  56 JAN 14,1975
    ,367    412.611                  19  58 JAN 14,1975
    ,400    412,658                  20  00 JAN 14,1975
    ,433    412.729                  20  02 JAN 14,1975
    ,467    412.800                  20  04 JAN 14,1975
    ,500    412,847                  20  06 JAN 14,1975    END SHUT-IN
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16 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
71 MPT NO.3 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0.000	412.847	20	06	JAN 14,1975	FINAL OPEN
.134	405.579	20	14	JAN 14,1975	
.168	404.987	20	16	JAN 14,1975	
.201	406.408	20	18	JAN 14,1975	
.235	407.473	20	20	JAN 14,1975	
.268	408.420	20	22	JAN 14,1975	
.302	409.320	20	24	JAN 14,1975	
.335	409.912	20	26	JAN 14,1975	
.369	410.460	20	28	JAN 14,1975	
.402	410.906	20	30	JAN 14,1975	
.436	411.332	20	32	JAN 14,1975	
.469	411.616	20	34	JAN 14,1975	
.503	411.877	20	36	JAN 14,1975	
.536	412.090	20	38	JAN 14,1975	
.570	412.279	20	40	JAN 14,1975	
.603	412.303	20	42	JAN 14,1975	
.637	412.516	20	44	JAN 14,1975	
.670	412.634	20	46	JAN 14,1975	
.704	412.729	20	48	JAN 14,1975	
.737	412.776	20	50	JAN 14,1975	5.75 GPM
.771	412.847	20	52	JAN 14,1975	INJECTION RATE
.804	413.084	20	54	JAN 14,1975	
.838	413.558	20	56	JAN 14,1975	
.871	413.960	20	58	JAN 14,1975	
.905	414.221	21	00	JAN 14,1975	
.938	414.671	21	02	JAN 14,1975	
.972	415.026	21	04	JAN 14,1975	10.13 GPM
1.005	415.286	21	06	JAN 14,1975	INJECTION RATE
1.039	415.618	21	08	JAN 14,1975	
1.072	416.186	21	10	JAN 14,1975	
1.106	416.636	21	12	JAN 14,1975	
1.139	416.967	21	14	JAN 14,1975	
1.173	417.299	21	16	JAN 14,1975	
1.207	417.488	21	18	JAN 14,1975	
1.240	417.677	21	20	JAN 14,1975	20 GPM
1.274	417.867	21	22	JAN 14,1975	INJECTION RATE
1.307	418.672	21	24	JAN 14,1975	
1.341	419.690	21	26	JAN 14,1975	
1.374	420.447	21	28	JAN 14,1975	
1.408	416.423	21	30	JAN 14,1975	

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
71 MPT NO,3 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
1.441	421.726	21	32	JAN 14,1975	
1.475	422.720	21	34	JAN 14,1975	32 GPM
1.508	423.691	21	36	JAN 14,1975	INJECTION RATE
1.542	425.988	21	38	JAN 14,1975	
1.575	428.024	21	41	JAN 14,1975	
1.609	429.847	21	43	JAN 14,1975	
1.642	431.457	21	45	JAN 14,1975	
1.676	432.877	21	47	JAN 14,1975	
1.709	434.061	21	49	JAN 14,1975	
1.743	434.914	21	51	JAN 14,1975	55 GPM INJECT
1.776	436.500	21	53	JAN 14,1975	
1.810	438.441	21	55	JAN 14,1975	
1.843	440.122	21	57	JAN 14,1975	
1.877	441.306	21	59	JAN 14,1975	
1.910	442.490	22	01	JAN 14,1975	
1.944	443.413	22	03	JAN 14,1975	
1.977	444.313	22	05	JAN 14,1975	DECLINE
2.011	444.218	22	07	JAN 14,1975	
2.044	440.099	22	09	JAN 14,1975	
2.078	436.192	22	11	JAN 14,1975	
2.111	432.499	22	13	JAN 14,1975	
2.145	429.539	22	15	JAN 14,1975	
2.178	427.100	22	17	JAN 14,1975	
2.212	425.112	22	19	JAN 14,1975	
2.245	423.454	22	21	JAN 14,1975	
2.279	422.081	22	23	JAN 14,1975	
2.312	420.945	22	25	JAN 14,1975	
2.346	419.927	22	27	JAN 14,1975	
2.379	419.051	22	29	JAN 14,1975	
2.413	418.317	22	31	JAN 14,1975	
2.447	417.654	22	33	JAN 14,1975	
2.480	417.109	22	35	JAN 14,1975	
2.514	416.683	22	37	JAN 14,1975	
2.547	416.280	22	39	JAN 14,1975	
2.581	415.949	22	41	JAN 14,1975	
2.614	415.641	22	43	JAN 14,1975	
2.648	415.381	22	45	JAN 14,1975	
2.681	415.168	22	47	JAN 14,1975	
2.715	414.955	22	49	JAN 14,1975	
2.748	414.789	22	51	JAN 14,1975	

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
71 MPT NO.3 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
2,782	414,647	22	53	JAN 14,1975	
2,815	414.505	22	55	JAN 14,1975	
2.849	414.410	22	57	JAN 14,1975	
2,882	414,268	22	59	JAN 14,1975	
2,916	414.173	23	01	JAN 14,1975	
2.949	414,126	23	03	JAN 14,1975	
2,983	413,984	23	05	JAN 14,1975	
3.016	413,913	23	07	JAN 14,1975	
3.050	413,794	23	09	JAN 14,1975	
3,083	413,747	23	11	JAN 14,1975	END OF TEST

90 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

PREPARED FOR

ATLANTIC RICHFIELD COMPANY

WELL NUMBER	FEDERAL SG-17
FIELD/LEASE	SORGHUM GULCH TRACT CB
COUNTY/PARISH	RIO BLANCO
STATE	COLORADO
TYPE OF TEST	MULTIPLE PACKER DST
REFERENCE ELEV	GROUND LEVEL

ADDITIONAL INFORMATION

THESE DATA FROM POSITION NO. 2 OF A SIX INTERVAL SERIES.

USED GAUGE NO. 71 WITH 1000 LB. ELEMENT IN ANNULUS, AT 1146 FT.

UPPER PACKER WAS SET AT 1184 FT.

INITIAL HYDROSTATIC PRESSURE WAS 363.28 PSI

FINAL HYDROSTATIC PRESSURE WAS 364.14 PSI

THIS GAUGE REFERRED TO AS BEING TOP OUTSIDE

REFERENCE ELEVATION IS 7036 FT.

II B-1884

101 POINTS REPORTED THIS JOB

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JOB NUMBER                                                            DATE OF JOB
SPG-11210-LL                                             JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER                                                      DATE OF RUN
71      MPT NO,3  INIT,OPEN

                               SPERRY-SUN
                PRECISION SUBSURFACE PRESSURE GAUGE REPORT

   DELTA   PRESSURE                    TIME     DATE              COMMENTS
   TIME     (PSI)                     HR MIN

   0,000    365,405                   00  38 JAN 15,1975    INIT, OPEN
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                         1 POINTS REPORTED THIS RUN
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JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
71 MPT NO.3 SHUT-IN

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0.000	365.405	00	39	JAN 15,1975	SHUT-IN
.033	365.762	00	41	JAN 15,1975	
.067	365.905	00	43	JAN 15,1975	
.100	366.048	00	45	JAN 15,1975	
.133	366.096	00	47	JAN 15,1975	
.167	366.144	00	49	JAN 15,1975	
.200	366.191	00	51	JAN 15,1975	
.233	366.239	00	53	JAN 15,1975	
.267	366.311	00	55	JAN 15,1975	
.300	366.358	00	57	JAN 15,1975	
.333	366.430	00	59	JAN 15,1975	
.367	366.454	01	01	JAN 15,1975	
.400	366.502	01	03	JAN 15,1975	
.433	366.549	01	05	JAN 15,1975	
.467	366.549	01	07	JAN 15,1975	
.500	366.549	01	09	JAN 15,1975	END SHUT-IN

16 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
71 MPT NO,3 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0,000	366,549	01	16	JAN 15,1975	FINAL FLOW
,033	366,502	01	18	JAN 15,1975	
,066	366.955	01	20	JAN 15,1975	
,099	366.716	01	22	JAN 15,1975	
,132	414,481	01	24	JAN 15,1975	
,165	414,505	01	26	JAN 15,1975	
,198	414,552	01	28	JAN 15,1975	
,231	414,576	01	30	JAN 15,1975	
,263	414,599	01	32	JAN 15,1975	END DECLINE
,296	414,623	01	34	JAN 15,1975	
,329	414.647	01	36	JAN 15,1975	
,362	414.671	01	38	JAN 15,1975	
,395	414,671	01	40	JAN 15,1975	DOWN DP WITH
,428	414,671	01	42	JAN 15,1975	6 GPM
,461	414.671	01	44	JAN 15,1975	
,494	414.718	01	46	JAN 15,1975	
,527	414,742	01	48	JAN 15,1975	
,560	414.742	01	50	JAN 15,1975	
,593	414,765	01	52	JAN 15,1975	
,626	414,765	01	54	JAN 15,1975	
,659	414,789	01	56	JAN 15,1975	DOWN DP WITH
,692	414,789	01	57	JAN 15,1975	11 GPM
,725	414,789	01	59	JAN 15,1975	
,757	414,813	02	01	JAN 15,1975	
,790	414,813	02	03	JAN 15,1975	
,823	414.813	02	05	JAN 15,1975	
.856	414.860	02	07	JAN 15,1975	
,889	414,860	02	09	JAN 15,1975	DOWN DP WITH
,922	414.860	02	11	JAN 15,1975	20 GPM
,955	414.860	02	13	JAN 15,1975	
,988	414,860	02	15	JAN 15,1975	
1,021	414,884	02	17	JAN 15,1975	
1,054	414.884	02	19	JAN 15,1975	
1,087	414.907	02	21	JAN 15,1975	
1,120	414.931	02	23	JAN 15,1975	
1,153	414.907	02	25	JAN 15,1975	DOWN DP WITH
1.186	414.955	02	27	JAN 15,1975	40 GPM
1,218	414,931	02	29	JAN 15,1975	
1,251	414,931	02	31	JAN 15,1975	
1,284	414,931	02	33	JAN 15,1975	

JOB NUMBER SPG-11210-LL	DATE OF JOB JANUARY 14 AND 15, 1975
GAUGE/RUN NUMBER 71 MPT NO.3 FINAL FLOW	DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
1,317	414,955	02	35	JAN 15,1975	
1.350	414,978	02	37	JAN 15,1975	
1,383	415,002	02	39	JAN 15,1975	
1.416	415,026	02	41	JAN 15,1975	DOWN DP WITH
1,449	415,026	02	43	JAN 15,1975	60 GPM
1.482	415.026	02	45	JAN 15.1975	
1,515	415,026	02	47	JAN 15,1975	
1,548	415,073	02	49	JAN 15,1975	
1,581	415,073	02	51	JAN 15,1975	
1,614	415,073	02	53	JAN 15,1975	
1,647	415.097	02	55	JAN 15,1975	START DECLINE
1,680	415,097	02	57	JAN 15,1975	
1,712	415.144	02	59	JAN 15,1975	
1,745	415.144	03	01	JAN 15,1975	
1,778	415.144	03	03	JAN 15,1975	
1,811	415.168	03	05	JAN 15,1975	
1.844	415.168	03	07	JAN 15,1975	
1,877	415.168	03	09	JAN 15,1975	
1,910	415.168	03	11	JAN 15,1975	
1,943	415.168	03	13	JAN 15,1975	
1,976	415,168	03	15	JAN 15,1975	
2,009	415.168	03	17	JAN 15,1975	
2,042	415,168	03	19	JAN 15,1975	
2,075	415,168	03	20	JAN 15,1975	
2,108	415.168	03	22	JAN 15,1975	
2,141	415.168	03	24	JAN 15,1975	
2,174	415,168	03	26	JAN 15,1975	
2,206	415.168	03	28	JAN 15,1975	
2,239	415.168	03	30	JAN 15,1975	
2.272	415,168	03	32	JAN 15,1975	
2,305	415.168	03	34	JAN 15,1975	
2,338	415,168	03	36	JAN 15,1975	
2.371	415.191	03	38	JAN 15,1975	
2,404	415,191	03	40	JAN 15,1975	
2.437	415.239	03	42	JAN 15,1975	
2,470	415.239	03	44	JAN 15,1975	
2,503	415.239	03	46	JAN 15,1975	
2,536	415.239	03	48	JAN 15,1975	
2,569	415.239	03	50	JAN 15,1975	
2,602	415,239	03	52	JAN 15,1975	

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
71 MPT NO.3 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

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DELTA     PRESSURE                    TIME      DATE             COMMENTS
TIME       (PSI)                     HR MIN

2,635     415,239                    03   54 JAN 15,1975
2,667     415,239                    03   56 JAN 15,1975
2,700     415,239                    03   58 JAN 15,1975
2,733     415,239                    04   00 JAN 15,1975   END OF TEST
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84 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

PREPARED FOR

ATLANTIC RICHFIELD COMPANY

WELL NUMBER	FEDERAL SG-17
FIELD/LEASE	SORGHUM GULCH TRACT CB
COUNTY/PARISH	RIO BLANCO
STATE	COLORADO
TYPE OF TEST	MULTIPLE PACKER DST
REFERENCE ELEV	GROUND LEVEL

ADDITIONAL INFORMATION

THESE DATA FROM POSITION NO. 3 OF A SIX INTERVAL SERIES.

USED GAUGE NO. 71 WITH 1000 LB. ELEMENT IN ANNULUS, AT 1109 FT.

UPPER PACKER WAS SET AT 1147 FT.

INITIAL HYDROSTATIC PRESSURE WAS 349.05 PSI

FINAL HYDROSTATIC PRESSURE WAS 349.78 PSI

THIS GAUGE REFERRED TO AS BEING TOP OUTSIDE

REFERENCE ELEVATION IS 7036 FT.

95 POINTS REPORTED THIS JOB

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JOB NUMBER                                                              DATE OF JOB
SPG-11210-LL                                                JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER                                                        DATE OF RUN
71      MPT NO.3  INIT,OPEN

                                   SPERRY-SUN
                   PRECISION SUBSURFACE PRESSURE GAUGE REPORT

    DELTA    PRESSURE                  TIME      DATE              COMMENTS
    TIME      (PSI)                    HR MIN

    0.000    350.142                   05   08 JAN 15,1975    INIT. FLOW
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II B-1891

1 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
71 MPT NO.3 SHUT-IN

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME		DATE	COMMENTS
		HR	MIN		
0.000	350.142	05	09	JAN 15,1975	SHUT-IN
.036	350.810	05	11	JAN 15,1975	
.071	350.834	05	13	JAN 15,1975	
.107	351.144	05	15	JAN 15,1975	PACKER PROBLEM
.143	350.905	05	18	JAN 15,1975	
.179	350.953	05	20	JAN 15,1975	
.214	351.001	05	22	JAN 15,1975	
.250	351.025	05	24	JAN 15,1975	
.286	351.048	05	26	JAN 15,1975	
.321	351.072	05	28	JAN 15,1975	
.357	351.096	05	30	JAN 15,1975	
.393	351.120	05	33	JAN 15,1975	
.429	351.120	05	35	JAN 15,1975	
.464	351.144	05	37	JAN 15,1975	
.500	351.168	05	39	JAN 15,1975	END SHUT-IN

15 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
71 MPT NO.3 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	TIME MIN	DATE	COMMENTS
0.000	351.168	05	47	JAN 15,1975	FINAL FLOW
.034	351.573	05	49	JAN 15,1975	
.068	351.692	05	51	JAN 15,1975	
.103	351.692	05	53	JAN 15,1975	
.137	351.668	05	55	JAN 15,1975	
.171	351.621	05	57	JAN 15,1975	
.205	351.621	05	59	JAN 15,1975	DOWN DP WITH
.239	351.645	06	01	JAN 15,1975	5 GPM
.274	351.621	06	03	JAN 15,1975	
.308	351.812	06	05	JAN 15,1975	UPPER PACKER
.342	352.551	06	08	JAN 15,1975	MAY NOT BE SET
.376	353.290	06	10	JAN 15,1975	
.410	353.982	06	12	JAN 15,1975	
.444	354.626	06	14	JAN 15,1975	
.479	355.293	06	16	JAN 15,1975	DOWN DP WITH
.513	355.889	06	18	JAN 15,1975	10 GPM
.547	356.295	06	20	JAN 15,1975	
.581	357.010	06	22	JAN 15,1975	
.615	357.893	06	24	JAN 15,1975	
.650	358.680	06	26	JAN 15,1975	
.684	359.443	06	28	JAN 15,1975	
.718	360.182	06	30	JAN 15,1975	DOWN DP WITH
.752	360.945	06	32	JAN 15,1975	20 GPM
.786	361.756	06	34	JAN 15,1975	
.821	362.734	06	36	JAN 15,1975	
.855	364.212	06	38	JAN 15,1975	
.889	365.762	06	40	JAN 15,1975	
.923	367.479	06	42	JAN 15,1975	
.957	369.292	06	44	JAN 15,1975	DOWN DP WITH
.991	371.128	06	46	JAN 15,1975	40 GPM
1.026	372.821	06	49	JAN 15,1975	
1.060	374.443	06	51	JAN 15,1975	
1.094	376.613	06	53	JAN 15,1975	
1.128	378.902	06	55	JAN 15,1975	
1.162	381.287	06	57	JAN 15,1975	
1.197	383.767	06	59	JAN 15,1975	DOWN DP WITH
1.231	386.319	07	01	JAN 15,1975	60 GPM
1.265	388.966	07	03	JAN 15,1975	OVERFLOW 52GPM
1.299	391.851	07	05	JAN 15,1975	
1.333	394.689	07	07	JAN 15,1975	

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
71 MPT NO.3 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
1,368	397,932	07	09	JAN 15,1975	
1,402	401,557	07	11	JAN 15,1975	
1,436	405,110	07	13	JAN 15,1975	
1,470	408.330	07	15	JAN 15,1975	DECLINE
1,504	411,309	07	17	JAN 15,1975	
1,538	413,842	07	19	JAN 15,1975	
1,573	416,091	07	21	JAN 15,1975	
1,607	416,659	07	23	JAN 15,1975	
1,641	415,925	07	25	JAN 15,1975	
1,675	414,008	07	28	JAN 15,1975	
1.709	411,427	07	30	JAN 15,1975	
1,744	408.592	07	32	JAN 15,1975	
1,778	405,778	07	34	JAN 15,1975	
1,812	403,036	07	36	JAN 15,1975	
1,846	400,412	07	38	JAN 15,1975	
1,880	397,932	07	40	JAN 15,1975	
1,915	395,452	07	42	JAN 15,1975	
1,949	392.948	07	44	JAN 15,1975	
1,983	390.325	07	46	JAN 15,1975	
2,017	388.179	07	48	JAN 15,1975	
2.051	386,247	07	50	JAN 15,1975	
2,085	384,435	07	52	JAN 15,1975	
2,120	382.718	07	54	JAN 15,1975	
2,154	381,072	07	56	JAN 15,1975	
2,188	379.618	07	58	JAN 15,1975	
2,222	378,187	08	00	JAN 15,1975	
2,256	376.804	08	02	JAN 15,1975	
2,291	375.444	08	04	JAN 15,1975	
2,325	374,276	08	06	JAN 15,1975	
2,359	373.060	08	09	JAN 15,1975	
2,393	371.867	08	11	JAN 15,1975	
2.427	370.436	08	13	JAN 15,1975	
2,462	369,339	08	15	JAN 15,1975	
2,496	368.266	08	17	JAN 15,1975	
2,530	367.360	08	19	JAN 15,1975	
2,564	366,692	08	21	JAN 15,1975	END DECLINE
2,598	365,643	08	23	JAN 15,1975	
2,632	364,832	08	25	JAN 15,1975	
2,667	364,260	08	27	JAN 15,1975	END TEST

79 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

PREPARED FOR

ATLANTIC RICHFIELD COMPANY

WELL NUMBER	FEDERAL SG-17
FIELD/LEASE	SORGHUM GULCH TRACT CB
COUNTY/PARISH	RIO BLANCO
STATE	COLORADO
TYPE OF TEST	MULTIPLE PACKER DST
REFERENCE ELEV	GROUND LEVEL

ADDITIONAL INFORMATION

THESE DATA FROM POSITION NO. 4 OF A SIX INTERVAL SERIES.

USED GAUGE NO.71 WITH 1000 LB. ELEMENT IN ANNULUS AT 1085 FT.

UPPER PACKER WAS SET AT 1123 FT.

INITIAL HYDROSTATIC PRESSURE AT 338.15 PSI

FINAL HYDROSTATIC PRESSURE AT 339.08 PSI

THIS GAUGE REFERRED TO AS BEING TOP OUTSIDE

REFERENCE ELEVATION IS 7036 FT.

104 POINTS REPORTED THIS JOB

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JOB NUMBER                                                         DATE OF JOB
SPG-11210-LL                                         JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER                                                   DATE OF RUN
71      MPT NO.3  INIT.OPEN

                              SPERRY-SUN
                PRECISION SUBSURFACE PRESSURE GAUGE REPORT

    DELTA    PRESSURE                   TIME     DATE              COMMENTS
    TIME      (PSI)                    HR MIN

    0.000    339.769                   09  30 JAN 15,1975   INIT. OPEN
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1 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
71 MPT NO.3 SHUT-IN

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0.000	339.769	09	31	JAN 15,1975	SHUT-IN
.033	339.959	09	33	JAN 15,1975	
.067	340.102	09	35	JAN 15,1975	
.100	340.222	09	37	JAN 15,1975	
.133	340.246	09	39	JAN 15,1975	
.167	340.269	09	41	JAN 15,1975	
.200	340.317	09	43	JAN 15,1975	
.233	340.341	09	45	JAN 15,1975	
.267	340.341	09	47	JAN 15,1975	
.300	340.365	09	49	JAN 15,1975	
.333	340.412	09	51	JAN 15,1975	
.367	340.412	09	53	JAN 15,1975	
.400	340.412	09	55	JAN 15,1975	
.433	340.412	09	57	JAN 15,1975	
.467	340.460	09	59	JAN 15,1975	
.500	340.460	10	01	JAN 15,1975	END SHUT-IN

16 POINTS REPORTED THIS RUN

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JOB NUMBER                                                            DATE OF JOB
SPG-11210-LL                                               JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER                                                      DATE OF RUN
71      MPT NO.3  FINAL FLOW

                                 SPERRY-SUN
                PRECISION SUBSURFACE PRESSURE GAUGE REPORT

     DELTA     PRESSURE                     TIME      DATE                COMMENTS
     TIME       (PSI)                      HR MIN

     0.000     340.460                     10  09 JAN 15,1975     FINAL FLOW
      .033     340.794                     10  11 JAN 15,1975
      .066     340.794                     10  13 JAN 15,1975
      .099     340.842                     10  15 JAN 15,1975
      .133     340.818                     10  17 JAN 15,1975
      .166     340.818                     10  19 JAN 15,1975
      .199     340.842                     10  21 JAN 15,1975
      .232     340.866                     10  23 JAN 15,1975
      .265     340.889                     10  25 JAN 15,1975
      .298     340.889                     10  27 JAN 15,1975
      .331     340.889                     10  29 JAN 15,1975     END RECOVERY
      .365     340.913                     10  31 JAN 15,1975
      .398     340.913                     10  33 JAN 15,1975
      .431     340.889                     10  35 JAN 15,1975
      .464     340.913                     10  37 JAN 15,1975
      .497     340.937                     10  39 JAN 15,1975
      .530     340.937                     10  41 JAN 15,1975
      .563     340.913                     10  43 JAN 15,1975
      .597     340.913                     10  45 JAN 15,1975
      .630     340.961                     10  47 JAN 15,1975
      .663     340.961                     10  49 JAN 15,1975
      .696     340.937                     10  51 JAN 15,1975
      .729     340.961                     10  53 JAN 15,1975
      .762     340.961                     10  55 JAN 15,1975
      .795     340.961                     10  57 JAN 15,1975
      .828     340.961                     10  59 JAN 15,1975
      .862     340.961                     11  01 JAN 15,1975     DOWN DP WITH
      .895     340.985                     11  03 JAN 15,1975     5.27 GPM
      .928     340.985                     11  05 JAN 15,1975
      .961     340.961                     11  07 JAN 15,1975
      .994     340.961                     11  09 JAN 15,1975
     1.027     340.985                     11  11 JAN 15,1975
     1.060     340.985                     11  13 JAN 15,1975
     1.094     340.985                     11  15 JAN 15,1975
     1.127     340.985                     11  17 JAN 15,1975     DOWN DP WITH
     1.160     341.009                     11  19 JAN 15,1975     11.26 GPM
     1.193     341.009                     11  21 JAN 15,1975
     1.226     341.009                     11  23 JAN 15,1975
     1.259     341.009                     11  25 JAN 15,1975
     1.292     341.033                     11  27 JAN 15,1975
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JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
71 MPT NO,3 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
1,326	341,033	11	29	JAN 15,1975	
1.359	341.009	11	31	JAN 15,1975	DOWN DP WITH
1.392	341.056	11	33	JAN 15,1975	19.7 GPM
1,425	341,080	11	35	JAN 15,1975	
1.458	341.128	11	36	JAN 15,1975	
1,491	341,104	11	38	JAN 15,1975	
1,524	341,128	11	40	JAN 15,1975	
1,558	341,152	11	42	JAN 15,1975	
1,591	341,176	11	44	JAN 15,1975	OVERFLOW WITH
1,624	341,176	11	46	JAN 15,1975	13.33 GPM
1,657	341.319	11	48	JAN 15,1975	
1,690	341,438	11	50	JAN 15,1975	
1.723	341,486	11	52	JAN 15,1975	
1.756	341,533	11	54	JAN 15,1975	
1,790	341.605	11	56	JAN 15,1975	
1,823	341,653	11	58	JAN 15,1975	DECLINE
1.856	341.700	12	00	JAN 15,1975	
1.889	341,700	12	02	JAN 15,1975	
1.922	341.724	12	04	JAN 15,1975	
1,955	341.796	12	06	JAN 15,1975	
1,988	341.796	12	08	JAN 15,1975	
2,022	341.796	12	10	JAN 15,1975	
2.055	341,819	12	12	JAN 15,1975	
2,088	341.843	12	14	JAN 15,1975	
2.121	341,819	12	16	JAN 15,1975	
2.154	341.796	12	18	JAN 15,1975	
2,187	341.819	12	20	JAN 15,1975	
2,220	341,819	12	22	JAN 15,1975	
2,254	341.796	12	24	JAN 15,1975	
2,287	341.772	12	26	JAN 15,1975	
2,320	341.772	12	28	JAN 15,1975	
2.353	341.772	12	30	JAN 15,1975	
2.386	341.772	12	32	JAN 15,1975	
2.419	341,748	12	34	JAN 15,1975	
2.452	341.772	12	36	JAN 15,1975	
2.485	341.796	12	38	JAN 15,1975	
2.519	341,772	12	40	JAN 15,1975	
2.552	341.772	12	42	JAN 15,1975	
2.585	341,772	12	44	JAN 15,1975	
2,618	341,772	12	46	JAN 15,1975	

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
71 MPT NO.3 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
2.651	341.748	12	48	JAN 15,1975	
2.684	341.724	12	50	JAN 15,1975	
2.717	341.724	12	52	JAN 15,1975	
2.751	341.748	12	54	JAN 15,1975	
2.784	341.724	12	56	JAN 15,1975	
2.817	341.700	12	58	JAN 15,1975	
2.850	341.700	13	00	JAN 15,1975	END TEST

87 POINTS REPORTED THIS RUN

JOB NUMBER	DATE OF JOB
SPG-11210-LL	JANUARY 14 AND 15, 1975

SPERRY-SUN

PRECISION SUBSURFACE PRESSURE GAUGE REPORT

PREPARED FOR

ATLANTIC RICHFIELD COMPANY

WELL NUMBER	FEDERAL SG-17
FIELD/LEASE	SORGHUM GULCH TRACT CB
COUNTY/PARISH	RIO BLANCO
STATE	COLORADO
TYPE OF TEST	MULTIPLE PACKER DST
REFERENCE ELEV	GROUND LEVEL

ADDITIONAL INFORMATION

THESE DATA FROM POSITION NO. 5 OF A SIX INTERVAL SERIES.

USED GAUGE NO. 71 WITH 1000 LB. ELEMENT IN ANNULUS AT 1300 FT.

UPPER PACKER WAS SET AT 1338 FT.

INITIAL HYDROSTATIC WAS 376.88 PSI

FINAL HYDROSTATIC WAS 377.78 PSI

THIS GAUGE REFERRED TO AS BEING TOP OUTSIDE

REFERENCE ELEVATION IS 7036 FT.

99 POINTS REPORTED THIS JOB

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JOB NUMBER                                                        DATE OF JOB
SPG-11210-LL                                          JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER                                                  DATE OF RUN
71      MPT NO.3  INIT.OPEN

                               SPERRY-SUN
                PRECISION SUBSURFACE PRESSURE GAUGE REPORT

   DELTA   PRESSURE                  TIME      DATE             COMMENTS
   TIME     (PSI)                   HR MIN

   0.000    378.854                 14  12 JAN 15,1975   INIT. OPEN
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II B-1902

1 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
71 MPT NO.3 SHUT-IN

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0.000	378.854	14	13	JAN 15,1975	INIT. CLOSE
.033	378.664	14	15	JAN 15,1975	
.067	379.141	14	17	JAN 15,1975	
.100	379.498	14	19	JAN 15,1975	
.133	379.713	14	21	JAN 15,1975	
.167	379.928	14	23	JAN 15,1975	
.200	380.142	14	25	JAN 15,1975	
.233	380.309	14	27	JAN 15,1975	
.267	380.381	14	29	JAN 15,1975	
.300	380.500	14	31	JAN 15,1975	
.333	380.595	14	33	JAN 15,1975	
.367	380.667	14	35	JAN 15,1975	
.400	380.738	14	37	JAN 15,1975	
.433	380.810	14	39	JAN 15,1975	
.467	380.834	14	41	JAN 15,1975	
.500	380.881	14	43	JAN 15,1975	END SHUT-IN

16 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
71 MPT NO,3 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0,000	380,881	14	49	JAN 15,1975	FINAL FLOW
,033	381,239	14	51	JAN 15,1975	
,066	381,358	14	53	JAN 15,1975	
,099	381.406	14	55	JAN 15,1975	
,132	381,454	14	57	JAN 15,1975	
,165	381.502	14	59	JAN 15,1975	
,198	381,525	15	01	JAN 15,1975	
,230	381.573	15	03	JAN 15,1975	
,263	381.573	15	05	JAN 15,1975	
,296	381,621	15	07	JAN 15,1975	
,329	381.692	15	09	JAN 15,1975	
,362	381.668	15	11	JAN 15,1975	DOWN DP WITH
,395	381,668	15	13	JAN 15,1975	5,8 GPM
,428	381.716	15	15	JAN 15,1975	
,461	381,740	15	17	JAN 15,1975	
,494	381,740	15	19	JAN 15,1975	
,527	381.740	15	21	JAN 15,1975	
,560	381.788	15	23	JAN 15,1975	
,593	381,812	15	25	JAN 15,1975	DOWN DP WITH
,626	381.788	15	27	JAN 15,1975	10 GPM
,658	381,788	15	29	JAN 15,1975	
,691	381,812	15	30	JAN 15,1975	
,724	381,835	15	32	JAN 15,1975	
,757	381.835	15	34	JAN 15,1975	
,790	381,812	15	36	JAN 15,1975	
,823	381,835	15	38	JAN 15,1975	
,856	381.859	15	40	JAN 15,1975	DOWN DP WITH
,889	381,883	15	42	JAN 15,1975	20,1 GPM
,922	381.859	15	44	JAN 15,1975	
,955	381,907	15	46	JAN 15,1975	
,988	381.931	15	48	JAN 15,1975	
1,021	381.931	15	50	JAN 15,1975	
1,054	381,907	15	52	JAN 15,1975	
1,086	381,931	15	54	JAN 15,1975	DOWN DP WITH
1,119	381.978	15	56	JAN 15,1975	36,9 GPM
1.152	382,002	15	58	JAN 15,1975	
1,185	381.978	16	00	JAN 15,1975	
1,218	382,002	16	02	JAN 15,1975	
1.251	382,002	16	04	JAN 15,1975	
1,284	382,026	16	06	JAN 15,1975	

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
71 MPT NO.3 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
1.317	382.002	16	08	JAN 15,1975	
1.350	382.026	16	10	JAN 15,1975	DOWN DP WITH
1.383	382.050	16	12	JAN 15,1975	57.8 GPM
1.416	382.050	16	14	JAN 15,1975	
1.449	382.026	16	16	JAN 15,1975	
1.481	382.050	16	18	JAN 15,1975	
1.514	382.074	16	20	JAN 15,1975	
1.547	382.050	16	22	JAN 15,1975	
1.580	382.050	16	24	JAN 15,1975	
1.613	382.074	16	26	JAN 15,1975	DECLINE
1.646	382.145	16	28	JAN 15,1975	
1.679	382.122	16	30	JAN 15,1975	
1.712	382.098	16	32	JAN 15,1975	
1.745	382.145	16	34	JAN 15,1975	
1.778	382.145	16	36	JAN 15,1975	
1.811	382.169	16	38	JAN 15,1975	
1.844	382.145	16	40	JAN 15,1975	
1.877	382.169	16	42	JAN 15,1975	
1.909	382.193	16	44	JAN 15,1975	
1.942	382.193	16	46	JAN 15,1975	
1.975	382.193	16	48	JAN 15,1975	
2.008	382.217	16	49	JAN 15,1975	
2.041	382.217	16	51	JAN 15,1975	
2.074	382.217	16	53	JAN 15,1975	
2.107	382.193	16	55	JAN 15,1975	
2.140	382.217	16	57	JAN 15,1975	
2.173	382.217	16	59	JAN 15,1975	
2.206	382.217	17	01	JAN 15,1975	
2.239	382.193	17	03	JAN 15,1975	
2.272	382.217	17	05	JAN 15,1975	
2.305	382.217	17	07	JAN 15,1975	
2.337	382.241	17	09	JAN 15,1975	
2.370	382.217	17	11	JAN 15,1975	
2.403	382.241	17	13	JAN 15,1975	
2.436	382.265	17	15	JAN 15,1975	
2.469	382.265	17	17	JAN 15,1975	
2.502	382.241	17	19	JAN 15,1975	
2.535	382.241	17	21	JAN 15,1975	
2.568	382.265	17	23	JAN 15,1975	
2.601	382.241	17	25	JAN 15,1975	

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
71 MPT NO.3 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	TIME MIN	DATE	COMMENTS
2.634	382.241	17	27	JAN 15,1975	
2.667	382.241	17	29	JAN 15,1975	END TEST

82 POINTS REPORTED THIS RUN

JOB NUMBER SPG-11210-LL	DATE OF JOB JANUARY 14 AND 15, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

PREPARED FOR

ATLANTIC RICHFIELD COMPANY

WELL NUMBER	FEDERAL SG-17
FIELD/LEASE	SORGHUM GULCH TRACT CB
COUNTY/PARISH	RIO BLANCO
STATE	COLORADO
TYPE OF TEST	MULTIPLE PACKER DST
REFERENCE ELEV	GROUND LEVEL

ADDITIONAL INFORMATION

THESE DATA FROM POSITION NO, 6 OF A SIX INTERVAL SERIES.

USED GAUGE NO, 71 WITH 1000 LB, ELEMENT IN ANNULUS AT 1051 FT.

UPPER PACKER WAS SET AT 1089 FT,

INITIAL HYDROSTATIC PRESSURE WAS 267,11 PSI

FINAL HYDROSTATIC PRESSURE WAS 324,08 PSI

THIS GAUGE REFERRED TO AS BEING TOP OUTSIDE

REFERENCE ELEVATION IS 7036 FT.

II B-1907

158 POINTS REPORTED THIS JOB

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JOB NUMBER                                                       DATE OF JOB
SPG-11210-LL                                          JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER                                                 DATE OF RUN
71      MPT NO.3  INIT,OPEN

                                SPERRY-SUN
                PRECISION SUBSURFACE PRESSURE GAUGE REPORT

    DELTA   PRESSURE                 TIME     DATE            COMMENTS
    TIME     (PSI)                  HR MIN

    0,000    268,250                18  40 JAN 15,1975   INIT, OPEN
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                        1 POINTS REPORTED THIS RUN
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JOB NUMBER                                                    DATE OF JOB
SPG-11210-LL                                     JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER                                              DATE OF RUN
71      MPT NO.3  SHUT-IN

                               SPERRY-SUN
                PRECISION SUBSURFACE PRESSURE GAUGE REPORT


    DELTA   PRESSURE                     TIME     DATE           COMMENTS
    TIME     (PSI)                      HR MIN

    0.000   268.250                     18  41 JAN 15,1975   INIT. CLOSE
     ,033   268.680                     18  43 JAN 15,1975
     ,067   268.727                     18  45 JAN 15,1975
     ,100   268.846                     18  47 JAN 15,1975
     .133   268,894                     18  49 JAN 15,1975
     .167   268,966                     18  51 JAN 15,1975
     .200   268,990                     18  53 JAN 15,1975
     ,233   269.037                     18  55 JAN 15,1975
     .267   269.085                     18  57 JAN 15,1975
     .300   269.133                     18  59 JAN 15,1975
     .333   269,156                     19  01 JAN 15,1975
     ,367   269.276                     19  03 JAN 15,1975
     ,400   269.300                     19  05 JAN 15,1975
     ,433   269.300                     19  07 JAN 15,1975
     ,467   269.347                     19  09 JAN 15,1975
     .500   269.371                     19  11 JAN 15,1975   END SHUT-IN
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                  16 POINTS REPORTED THIS RUN
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JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
71 MPT NO.3 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0.000	269.371	19	20	JAN 15,1975	FINAL FLOW
.033	269.538	19	22	JAN 15,1975	
.066	269.610	19	24	JAN 15,1975	
.099	269.681	19	26	JAN 15,1975	
.132	269.753	19	28	JAN 15,1975	
.165	269.753	19	30	JAN 15,1975	
.199	269.777	19	32	JAN 15,1975	
.232	269.800	19	34	JAN 15,1975	
.265	269.872	19	36	JAN 15,1975	
.298	269.896	19	38	JAN 15,1975	
.331	269.920	19	40	JAN 15,1975	
.364	269.943	19	42	JAN 15,1975	
.397	269.991	19	44	JAN 15,1975	
.430	270.015	19	46	JAN 15,1975	
.463	270.015	19	48	JAN 15,1975	
.496	270.015	19	50	JAN 15,1975	
.530	270.110	19	52	JAN 15,1975	
.563	270.110	19	54	JAN 15,1975	
.596	270.110	19	56	JAN 15,1975	
.629	270.110	19	58	JAN 15,1975	
.662	270.134	20	00	JAN 15,1975	
.695	270.182	20	02	JAN 15,1975	
.728	270.182	20	04	JAN 15,1975	
.761	270.182	20	06	JAN 15,1975	
.794	270.206	20	08	JAN 15,1975	
.827	270.206	20	10	JAN 15,1975	
.860	270.182	20	12	JAN 15,1975	
.894	270.206	20	14	JAN 15,1975	
.927	270.301	20	16	JAN 15,1975	
.960	270.277	20	18	JAN 15,1975	
.993	270.253	20	20	JAN 15,1975	
1.026	270.277	20	22	JAN 15,1975	
1.059	270.325	20	24	JAN 15,1975	
1.092	270.325	20	26	JAN 15,1975	DOWN DP WITH
1.125	270.301	20	28	JAN 15,1975	5 GPM
1.158	270.325	20	29	JAN 15,1975	
1.191	270.349	20	31	JAN 15,1975	
1.225	270.349	20	33	JAN 15,1975	
1.258	270.301	20	35	JAN 15,1975	
1.291	270.349	20	37	JAN 15,1975	

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
71 MPT NO.3 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
1.324	270.373	20	39	JAN 15,1975	DOWN DP WITH
1.357	270.373	20	41	JAN 15,1975	10 GPM
1.390	270.373	20	43	JAN 15,1975	
1.423	270.420	20	45	JAN 15,1975	
1.456	270.420	20	47	JAN 15,1975	
1.489	270.420	20	49	JAN 15,1975	
1.522	270.373	20	51	JAN 15,1975	
1.555	270.420	20	53	JAN 15,1975	
1.589	270.444	20	55	JAN 15,1975	
1.622	270.468	20	57	JAN 15,1975	
1.655	270.444	20	59	JAN 15,1975	DOWN DP WITH
1.688	270.516	21	01	JAN 15,1975	20 GPM
1.721	270.516	21	03	JAN 15,1975	
1.754	270.540	21	05	JAN 15,1975	
1.787	270.563	21	07	JAN 15,1975	OVERFLOW 11GPM
1.820	271.040	21	09	JAN 15,1975	
1.853	271.732	21	11	JAN 15,1975	
1.886	271.970	21	13	JAN 15,1975	
1.920	272.209	21	15	JAN 15,1975	
1.953	272.471	21	17	JAN 15,1975	
1.986	272.734	21	19	JAN 15,1975	
2.019	272.948	21	21	JAN 15,1975	DECLINE
2.052	273.211	21	23	JAN 15,1975	
2.085	273.449	21	25	JAN 15,1975	
2.118	273.473	21	27	JAN 15,1975	
2.151	273.425	21	29	JAN 15,1975	
2.184	273.354	21	31	JAN 15,1975	
2.217	273.282	21	33	JAN 15,1975	
2.250	273.187	21	35	JAN 15,1975	
2.284	273.115	21	37	JAN 15,1975	
2.317	273.020	21	39	JAN 15,1975	
2.350	272.948	21	41	JAN 15,1975	
2.383	272.853	21	43	JAN 15,1975	
2.416	272.805	21	45	JAN 15,1975	
2.449	272.710	21	47	JAN 15,1975	
2.482	272.638	21	49	JAN 15,1975	
2.515	272.591	21	51	JAN 15,1975	
2.548	272.543	21	53	JAN 15,1975	
2.581	272.471	21	55	JAN 15,1975	
2.615	272.400	21	57	JAN 15,1975	

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
71 MPT NO.3 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
2.648	272.352	21	59	JAN 15,1975	
2.681	272.328	22	01	JAN 15,1975	
2.714	272.257	22	03	JAN 15,1975	
2.747	272.209	22	05	JAN 15,1975	
2.780	272.161	22	07	JAN 15,1975	
2.813	272.066	22	09	JAN 15,1975	
2.846	272.042	22	11	JAN 15,1975	
2.879	271.994	22	13	JAN 15,1975	
2.912	271.970	22	15	JAN 15,1975	
2.945	271.947	22	17	JAN 15,1975	
2.979	271.899	22	19	JAN 15,1975	
3.012	271.899	22	21	JAN 15,1975	
3.045	271.827	22	23	JAN 15,1975	
3.078	271.804	22	25	JAN 15,1975	END DECLINE
3.111	271.756	22	27	JAN 15,1975	START 20 GPM
3.144	273.306	22	29	JAN 15,1975	IN ANNULUS
3.177	276.621	22	31	JAN 15,1975	
3.210	279.721	22	33	JAN 15,1975	
3.243	282.869	22	35	JAN 15,1975	
3.276	286.088	22	37	JAN 15,1975	
3.309	289.212	22	39	JAN 15,1975	
3.343	292.193	22	41	JAN 15,1975	DOWN ANNULUS
3.376	296.653	22	43	JAN 15,1975	WITH 40 GPM
3.409	303.258	22	45	JAN 15,1975	
3.442	310.222	22	47	JAN 15,1975	
3.475	316.374	22	48	JAN 15,1975	
3.508	321.645	22	50	JAN 15,1975	
3.541	326.438	22	52	JAN 15,1975	
3.574	330.826	22	54	JAN 15,1975	DOWN ANNULUS
3.607	334.880	22	56	JAN 15,1975	WITH 60 GPM
3.640	341.366	22	58	JAN 15,1975	
3.674	348.139	23	00	JAN 15,1975	
3.707	355.365	23	02	JAN 15,1975	
3.740	361.398	23	04	JAN 15,1975	
3.773	366.716	23	06	JAN 15,1975	
3.806	371.199	23	08	JAN 15,1975	
3.839	374.323	23	10	JAN 15,1975	END INJECTION
3.872	373.584	23	12	JAN 15,1975	DECLINE
3.905	369.888	23	14	JAN 15,1975	
3.938	366.549	23	16	JAN 15,1975	

JOB NUMBER
SPG-11210-LL

DATE OF JOB
JANUARY 14 AND 15, 1975

GAUGE/RUN NUMBER
71 MPT NO.3 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
3.971	363.544	23	18	JAN 15,1975	
4.004	360.707	23	20	JAN 15,1975	
4.038	358.083	23	22	JAN 15,1975	
4.071	355.770	23	24	JAN 15,1975	
4.104	353.624	23	26	JAN 15,1975	
4.137	351.025	23	28	JAN 15,1975	
4.170	348.568	23	30	JAN 15,1975	
4.203	346.303	23	32	JAN 15,1975	
4.236	344.252	23	34	JAN 15,1975	
4.269	342.368	23	36	JAN 15,1975	
4.302	340.746	23	38	JAN 15,1975	
4.335	339.077	23	40	JAN 15,1975	
4.369	337.455	23	42	JAN 15,1975	
4.402	335.977	23	44	JAN 15,1975	
4.435	334.594	23	46	JAN 15,1975	
4.468	333.115	23	48	JAN 15,1975	
4.501	331.780	23	50	JAN 15,1975	
4.534	330.635	23	52	JAN 15,1975	
4.567	329.323	23	54	JAN 15,1975	
4.600	327.940	23	56	JAN 15,1975	
4.633	326.676	23	58	JAN 15,1975	END TEST

141 POINTS REPORTED THIS RUN

Drill Stem Tests - SG-20

AtlanticRichfieldCompany Internal Correspondence

Date: March 4, 1975

To: John Matis - PCB-555, Denver

From: Charles Martin - R138 Plano

Subject: Horizontal Permeability Data for Federal SG Wells Nos. 17, 20 and 21

Attached are horizontal permeability data for Federal SG Wells Nos. 17, 20, and 21. These values were calculated from drill stem tests conducted by Sperry Sun and Johnston. The method of calculation is described in "Pressure Buildup and Flow Tests in Wells" by C. S. Mathews and D.E. Russell, on pages 12-17 and 72-83. This book is published by the Society of Petroleum Engineers. An example calculation is found in Appendix F.

Charles Martin

Charles Martin

CM:dm

cc: A. L. Barnes

Attachments

Federal SG No. 20

C-b Lease, Rio Blanco County, Colorado

DST No.	Interval feet	Permeability md.	Remarks
1	848-894		Injected at unknown rate.
2	945-986		Insufficient decline data

Federal SG No. 21

C-b Lease, Rio Blanco County, Colorado

DST No.	Interval feet	Permeability md	Remarks
2	950-1000		No injection information
1	1000-1036	20.	

DRILL STEM TESTS

WELL SG-20

COMPANY ATLANTIC RICHFIELD COMPANY
WELL FEDERAL S-G #20
TEST NO. 1
COUNTY RIO BLANCO
STATE COLORADO

JOHNSTON

Schlumberger

technical report

II B-1917

RECEIVED
DEC 31 1974
A. A. ROBERG

F.R. #04367 C

JOHNSTON
...found a better way

SURFACE INFORMATION

Description (Rate of Flow)	Time	Pressure (P.S.I.G.)	Surface Choke
Opened Tool			
SEE SUPPLEMENTARY SHEET			

Cushion Type	Amount	Pressure	Bottom Choke
	-		Size 3/4"

MUD DATA

Mud Type SOAP WATER Wt. -
Viscosity - Water Loss - C.C.
Resist: of Mud - @ - °F; of Filtrate - @ - °F
Chloride Content - PPM

EQUIPMENT & HOLE DATA

Type Test M.F.E. OPEN HOLE
Formation Tested GROOVE "A"
Elevation 1599 Ft.
Net Productive Interval - Ft.
Estimated Porosity - %
All Depths Measured From GROUND LEVEL
Total Depth 945 Ft.
Main Hole/Casing Size 6 1/4"
Rat Hole/Liner Size -
Drill Collar Length 209' I.D. 1 3/4"
Drill Pipe Length 641' I.D. 2.1"
Packer Depth(s) 892 & 896 Ft.

MULTI-FLOW EVALUATOR FLUID SAMPLE DATA

Sampler Pressure P.S.I.G. at Surface
Recovery: Cu. Ft. Gas
cc. Oil
cc. Water
cc. Mud
Tot. Liquid cc.
Gravity °API @ °F.
Gas/Oil Ratio cu. ft./bbl.

	RESISTIVITY	CHLORIDE CONTENT
Recovery Water	@ °F.	ppm
Recovery Mud	@ °F.	
Recovery Mud Filtrate	@ °F.	ppm
Mud Pit Sample	@ °F.	
Mud Pit Sample Filtrate	@ °F.	ppm

RECOVERY DESCRIPTION	FEET	BARRELS	% OIL	% WATER	% OTHERS	API GRAVITY	RESISTIVITY	CHL PPM
WATER	562	2.22				@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	

Remarks:

Address 1500 SECURITY LIFE BUILDING, 1600 GLENARM; DENVER, COLORADO 80202

Company ATLANTIC RICHFIELD COMPANY Field SORGHUM GULCH
Well FEDERAL S-G #[illegible]0 Location SEC. 31-1S-R[illegible]
Test Interval [illegible]' TO 945' Test # 1 Date 12-9-74

County RIO BLANCO State COLORADO II B-1918
Technician MOUDRY (VERNAL) Test Approved By MR. JOHN SCOTT [illegible]

Field Report No. 04367 C
No. Reports Requested 14 [illegible]

SUPPLEMENTARY SHEET FOR FIELD REPORT #04367 C

SURFACE INFORMATION

DESCRIPTION (RATE OF FLOW)		TIME	PRESSURE (P.S.I.G.)	SURFACE CHOKE
OPENED TOOL LIGHT BLOW		0253	-	-
CLOSED FOR INITIAL SHUT-IN		0255	-	-
FINISHED SHUT-IN		0325	-	-
RE-OPENED TOOL		0328	-	-
JETTED AIR INTO DRILL PIPE	FROM	0755	-	-
	UNTIL	0905	-	-
INJECTED INTO FORMATION, 2 GAL./MIN. AT 399 P.S.I.	FROM	1115	-	-
	UNTIL	1130	-	-
INJECTED 5 GAL./MIN. AT 420 P.S.I.	FROM	1130	-	-
	UNTIL	1135	-	-
INJECTED 24 GAL./MIN. AT 434 P.S.I.	FROM	1135	-	-
	UNTIL	1145	-	-
INJECTED 36 GAL./MIN. AT 434 P.S.I.	FROM	1145	-	-
	UNTIL	1155	-	-
INJECTED 44.8 GAL./MIN. AT 434 P.S.I.	FROM	1155	-	-
	UNTIL	1205	-	-
INJECTED 51.2 GAL./MIN. AT 437 P.S.I.	FROM	1205	-	-
	UNTIL	1215	-	-
INJECTED 59.7 GAL./MIN. AT 482 P.S.I.	FROM	1215	-	-
	UNTIL	1225	-	-
INJECTED 51.2 GAL./MIN. AT 437 P.S.I.	FROM	1225	-	-
	UNTIL	1235	-	-
INJECTED 30.8 GAL./MIN. AT 434 P.S.I.	FROM	1235	-	-
	UNTIL	1245	-	-
PULLED PACKER LOOSE		1350	-	-

PRESSURE DATA

Instrument No.		4097 N		
Capacity (P.S.I.G.)		2800		
Instrument Depth		903'		
Instrument Opening		INSIDE		
Pressure Gradient P.S.I./Ft.				
Well Temperature °F.		68		
Initial Hydrostatic Mud	A			
Initial Shut-in	B			
Initial Flow	C			
Final Flow	D			
Final Shut-in	E			
Final Hydrostatic Mud	F			

Field Report No. 04367 C

TIME DATA

Time Given	Time Computed
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.

Remarks:

*Shut in pressure did not reach static reservoir pressure.

Clock Travel 0.003456 inches per min.

PRESSURE INCREMENTS

Point	Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$	Point	Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$	Point	Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$
1		376.7			90	390.7		8	379	362.6	
2	0	313.3			100	392.1			380	371.0	
	1	389.3			110	392.1			381	386.5	
	2	389.3			120	392.1			382	390.7	
	3	389.3			130	392.1			383	392.1	
	4	389.3			140	392.1			384	392.1	
	5	389.3			150	392.1			385	392.1	
	6	389.3			160	392.1			390	393.5	
	7	389.3			170	392.1			395	393.5	
	8	389.3			180	392.1			400	393.5	
	9	389.3			190	392.1			405	393.5	
	10	389.3			200	392.1			410	393.5	
	20	389.3			210	392.1			415	393.5	
	30	389.3			220	392.1			420	393.5	
3	36	389.3			230	392.1			425	393.5	
4	37	323.2			240	392.1			430	393.5	
	38	365.4			250	393.5			435	395.0	
	39	379.5			260	393.5			440	395.0	
	40	387.9			270	393.5			445	395.0	
	41	389.3			280	393.5			450	395.0	
	42	389.3			290	393.5			455	395.0	
	43	389.3			300	393.5			460	395.0	
	44	389.3		5	306	393.5			465	395.0	
	45	389.3		6	307	376.7			470	395.0	
	46	389.3			310	376.7			475	395.0	
	47	389.3			320	376.7			480	395.0	
	48	389.3			330	376.7			485	395.0	
	49	389.3			340	376.7			490	395.0	
	50	389.3			350	376.7			495	395.0	
	60	390.7			360	376.7			500	395.0	
	70	390.7			370	376.7			510	395.0	
	80	390.7		7	378	376.7					

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CONTINUED

PRESSURE DATA

Instrument No.		4097 N			
Capacity (P.S.I.G.)					Field Report No. 04367 C
Instrument Depth					
Instrument Opening					
Pressure Gradient P.S.I./Ft.					TIME DATA
Well Temperature °F.					
					Time Given / Time Computed
Initial Hydrostatic Mud	A				
Initial Shut-in	B				Mins. / Mins.
Initial Flow	C				Mins. / Mins.
					Mins. / Mins.
					Mins. / Mins.
Final Flow	D				Mins. / Mins.
Final Shut-in	E				Mins. / Mins.
Final Hydrostatic Mud	F				

Remarks:

*Shut in pressure did not reach static reservoir pressure.

Clock Travel ______ inches per min.

PRESSURE INCREMENTS

	Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$		Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$
	520	396.4			588	458.3				
	530	396.4			590	459.7				
9	531	396.4			592	431.5				
	532	410.4			594	433.0				
	534	411.8			596	433.0				
	536	411.8			598	434.4				
	538	413.3			600	434.4				
	540	423.1			602	399.2				
	542	433.0		11	604	399.2				
	544	435.8			610	399.2				
	546	435.8			620	399.2				
	548	437.2			630	399.2				
	550	438.6								
	552	452.7			640	399.2				
	554	452.7			650	399.2				
	556	452.7		12	657	399.2				
	558	452.7		13		383.7				
	560	452.7								
	562	456.3								
	564	456.9								
	566	455.5								
	568	454.1								
	570	455.5								
	572	456.3								
	574	460.7								
	576	465.1								
	578	469.6								
	580	469.6								
	582	469.6								
10	583	469.0								
	584	458.3								
	586	458.7								

II B-1021

PRESSURE DATA

Instrument No.	32342 N		
Capacity (P.S.I.G.)	2800		
Instrument Depth	919'		
Instrument Opening	OUTSIDE		
Pressure Gradient P.S.I./Ft.			
Well Temperature °F.	68		
Initial Hydrostatic Mud A			
Initial Shut-in B			
Initial Flow C			
Final Flow D			
Final Shut-in E			
Final Hydrostatic Mud F			

Field Report No. 04367 C

TIME DATA

Time Given	Time Computed
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.

Remarks:

Shut in pressure did not reach static reservoir pressure.

Clock Travel 0.003643 inches per min.

PRESSURE INCREMENTS

Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$
1	382.2		90	396.3		8 379	366.7	
2 0	318.8		100	396.3		380	387.9	
1	394.9		110	397.7		381	393.5	
2	394.9		120	397.7		382	394.9	
3	394.9		130	397.7		383	396.3	
4	394.9		140	397.7		384	396.3	
5	394.9		150	397.7		385	397.7	
6	394.9		160	397.7		390	397.7	
7	394.9		170	397.7		395	397.7	
8	394.9		180	397.7		400	397.7	
9	394.9		190	397.7		405	397.7	
10	394.9		200	397.7		410	397.7	
20	394.9		210	397.7		415	397.7	
30	394.9		220	397.7		420	397.7	
3 36	394.9		230	397.7		425	397.7	
4 37	331.5		240	397.7		430	397.7	
38	362.5		250	397.7		435	397.7	
39	383.6		260	397.7		440	397.7	
40	390.7		270	397.7		445	399.2	
41	394.9		280	397.7		450	399.2	
42	396.3		290	399.2		455	399.2	
43	396.3		300	399.2		460	399.2	
44	396.3		5 306	399.2		465	399.2	
45	396.3		6 307	379.4		470	399.2	
46	396.3		310	382.2		475	399.2	
47	396.3		320	382.2		480	399.2	
48	396.3		330	382.2		485	399.2	
49	396.3		340	382.2	II B-1922	490	399.2	
50	396.3		350	382.2		495	399.2	
60	396.3		360	382.2		500	399.2	
70	396.3		370	382.2		510	400.6	
80	396.3		7 378	382.2		CONTINUED		

PRESSURE DATA

Instrument No.	32342 N		
Capacity (P.S.I.G.)			
Instrument Depth			
Instrument Opening			
Pressure Gradient P.S.I./Ft.			
Well Temperature °F.			
Initial Hydrostatic Mud A			
Initial Shut-in B			
Initial Flow C			
Final Flow D			
Final Shut-in E			
Final Hydrostatic Mud F			

Field Report No. 04367 C

TIME DATA

Time Given	Time Computed
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.

Remarks:

*Shut in pressure did not reach static reservoir pressure.

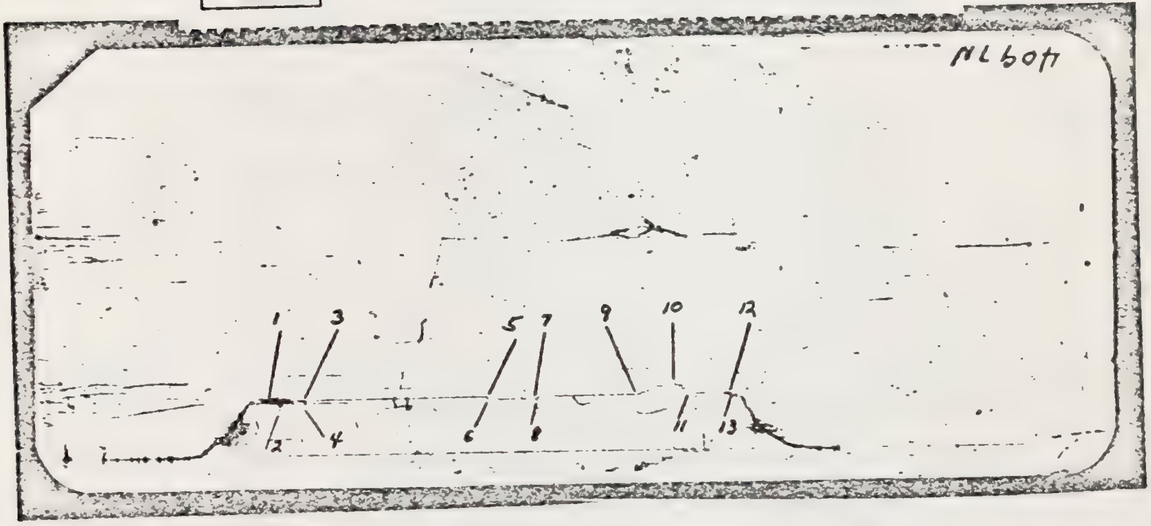
Clock Travel ________ inches per min.

PRESSURE INCREMENTS

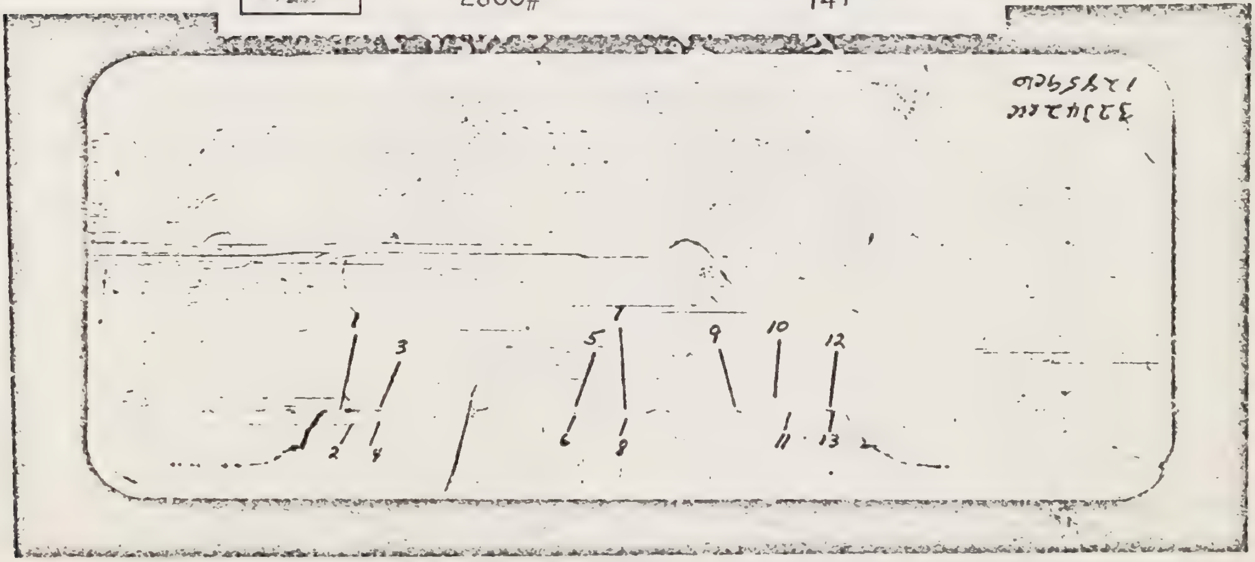
Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$
520	400.6		588	464.0				
530	400.6		590	459.8				
9 531	400.6		592	461.2				
532	409.0		594	433.0				
534	414.7		596	435.8				
536	414.7		598	435.8				
538	416.1		600	435.8				
540	416.1		602	437.2				
542	431.6		11 604	403.4				
544	435.8		610	402.0				
546	438.6		620	402.0				
548	438.6		630	402.0				
550	441.5		640	402.0				
552	444.3		650	402.0				
554	455.6		12 657	402.0				
556	455.6		13	386.5				
558	455.6							
560	455.6							
562	455.6							
564	459.8							
566	459.8							
568	459.8							
570	457.0							
572	458.4							
574	468.3							
576	469.7							
578	471.1							
580	471.1							
582	472.5							
10 583	472.5							
584	461.2							
586	462.6							

II B-1923

FIELD REPORT NO.	RECORDER NO.
04367 C	4097 N
CAPACITY	REPORTS REQUESTED
2800#	14+



FIELD REPORT NO.	RECORDER NO.
04367 C	32342 N
CAPACITY	REPORTS REQUESTED
2800#	14+



PRESSURE GAUGE DRILL STEM TEST SHEET SG-20

DST 1
896-930

Job No. SPG11215-1 Date DEC 9, 1974 Run #1 Office CASPER

Customer Arco ET AL Location

State Colorado County/~~Parish~~ Rio BLANCO County

Well SORGUM GULCH S-G No. 20 Field

USE MILITARY TIME FOR ALL TIMES

	Time	Date		Time	Date	Time Charged
Arrive: Well/~~Dock~~	1. 5:30pm	12/9/74	2.			
Depart: Well/~~Dock~~	1. 5:30pm	12/9/74	2.			24 Hrs.
Gauge Start in Hole	1.		2.			
Gauge Out of Hole	1.		2.			Hrs.

No. Trips 1 Miles 90 Total Mileage 90

Top Gauge # 194 Element # 35338 Range 2000 lbs Time Mode 1 MIN

Btm. Gauge # 133 Element # 353305 Range 2000 lbs Time Mode 1 MIN

Type Tool Test Depth 900' Zero Point Ground level

Packer Depth 894/896' Tail Pipe Depth 945' Top Gauge Depth 848'

Bottom Hole Temp. 35F Atmos. Temp. 10F Bottom Gauge Depth 930'

TIME INFORMATION	Time	Date	PRESSURE INFORMATION	
On Bottom	0234	12/9/74	Initial Hydrostatic Mud	
Packer Set	0250	12/9/74	Initial Draw Down	
Initial Open	0253	12/9/74	Initial Build-Up	
Initial Shut-In	0255	12/9/74	Final Flow	
Start Flow	0325	12/9/74	Final Build-Up	
Final Shut-In	1338	12/9/74	Final Hydrostatic Mud	
Packer Unseated	1340	12/9/74	Mud Weight	

TIME OF SURFACE NULLS

Top Gauge Bottom Gauge

Remarks

SP-423 II B-1925 MIKE ELMORE
Operator

JOB NUMBER
SPG-11215-1

DATE OF JOB
12-9-74

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

PREPARED FOR

ATLANTIC RICHFIELD COMPANY

WELL NUMBER	FEDERAL SG-20
FIELD/LEASE	TRACT C-B SORGHUM GULCH
COUNTY/PARISH	RIO BLANCO
STATE	COLORADO
TYPE OF TEST	DRILL STEM
REFERENCE ELEV	GROUND LEVEL

ADDITIONAL INFORMATION

USED GAUGE 133 WITH 2000 LB. ELEMENT

GAUGE DEPTH IS 930 FT. INSIDE DRILL PIPE

BELOW PACKER

TEST INTERVAL 896 FT. TO 930 FT.

PACKER DEPTH 894 TO 896 FT.

INITIAL HYDROSTATIC IS 391.58 PSI

FINAL HYDROSTATIC IS 396.76 PSI

652 POINTS REPORTED THIS JOB

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JOB NUMBER                                                        DATE OF JOB
SPG-11215-1                                                           12-9-74

GAUGE/RUN NUMBER                                                  DATE OF RUN
133 RUN NO. 1 DST NO. 1                                               12-9-74

                                  SPERRY-SUN
                   PRECISION SUBSURFACE PRESSURE GAUGE REPORT

    DELTA   PRESSURE                    TIME    DATE               COMMENTS
    TIME    (PSI)                      HR MIN

    0.000   374.907                    02  55 DEC 09,1974   INITIAL SHUTIN
     .016   404.502                    02  56 DEC 09,1974
     .032   404.641                    02  57 DEC 09,1974
     .049   405.429                    02  58 DEC 09,1974
     .065   405.614                    02  59 DEC 09,1974
     .081   405.382                    03  00 DEC 09,1974
     .097   405.707                    03  01 DEC 09,1974
     .114   405.521                    03  02 DEC 09,1974
     .130   405.660                    03  03 DEC 09,1974
     .146   405.475                    03  04 DEC 09,1974
     .162   405.660                    03  05 DEC 09,1974
     .179   405.660                    03  06 DEC 09,1974
     .195   405.614                    03  07 DEC 09,1974
     .211   405.660                    03  08 DEC 09,1974
     .227   405.614                    03  09 DEC 09,1974
     .243   405.846                    03  10 DEC 09,1974
     .260   405.938                    03  11 DEC 09,1974
     .276   406.031                    03  12 DEC 09,1974
     .292   405.938                    03  13 DEC 09,1974
     .308   406.031                    03  14 DEC 09,1974
     .325   406.170                    03  14 DEC 09,1974
     .341   406.494                    03  15 DEC 09,1974
     .357   406.031                    03  16 DEC 09,1974
     .373   406.124                    03  17 DEC 09,1974
     .389   406.262                    03  18 DEC 09,1974
     .406   406.124                    03  19 DEC 09,1974
     .422   405.985                    03  20 DEC 09,1974
     .438   405.985                    03  21 DEC 09,1974
     .454   406.124                    03  22 DEC 09,1974
     .471   406.170                    03  23 DEC 09,1974
     .487   406.355                    03  24 DEC 09,1974
     .503   406.355                    03  25 DEC 09,1974
     .519   406.170                    03  26 DEC 09,1974
     .536   406.170                    03  27 DEC 09,1974
     .552   406.355                    03  28 DEC 09,1974
     .568   406.170                    03  29 DEC 09,1974
     .584   406.309                    03  30 DEC 09,1974
     .600   406.170                    03  31 DEC 09,1974
     .617   406.262                    03  32 DEC 09,1974   END SHUT IN
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                          39 POINTS REPORTED THIS RUN
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JOB NUMBER
SPG-11215-1

DATE OF JOB
12-9-74

GAUGE/RUN NUMBER
133 RUN NO, 1 DST NO, 1

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0,000	346,098	03	33	DEC 09,1974	FLOW START
,016	346,654	03	34	DEC 09,1974	
,033	396.305	03	35	DEC 09,1974	
,049	404,317	03	36	DEC 09,1974	
,066	405.660	03	37	DEC 09,1974	
,082	405,799	03	38	DEC 09,1974	
,099	405.892	03	39	DEC 09,1974	
,115	405,985	03	40	DEC 09,1974	
,132	405,892	03	41	DEC 09,1974	
,148	406.077	03	42	DEC 09,1974	
,165	405.985	03	43	DEC 09,1974	
,181	406.124	03	44	DEC 09,1974	
,198	406.031	03	45	DEC 09,1974	
,214	405,985	03	46	DEC 09,1974	
,231	406,077	03	47	DEC 09,1974	
,247	406.124	03	48	DEC 09,1974	
,264	406,124	03	49	DEC 09,1974	
,280	406,262	03	50	DEC 09,1974	
,297	406,262	03	51	DEC 09,1974	
,313	406,216	03	52	DEC 09,1974	
,330	406,216	03	53	DEC 09,1974	
,346	406,216	03	54	DEC 09,1974	
,362	406,401	03	55	DEC 09,1974	
,379	406,355	03	56	DEC 09,1974	
,395	406.309	03	57	DEC 09,1974	
,412	406,587	03	58	DEC 09,1974	
,428	406,448	03	59	DEC 09,1974	
,445	406.540	04	00	DEC 09,1974	
,461	406,540	04	01	DEC 09,1974	
,478	406.540	04	02	DEC 09,1974	
,494	406,448	04	03	DEC 09,1974	
,511	406.494	04	04	DEC 09,1974	
,527	406,494	04	05	DEC 09,1974	
,544	406,448	04	06	DEC 09,1974	
,560	406,587	04	07	DEC 09,1974	
,577	406,587	04	08	DEC 09,1974	
,593	406,633	04	09	DEC 09,1974	
,610	406,587	04	10	DEC 09,1974	
,626	406,540	04	11	DEC 09,1974	
,643	406,679	04	12	DEC 09,1974	

JOB NUMBER
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SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR MIN	DATE	COMMENTS
.659	406.726	04 13	DEC 09,1974	
.676	406.726	04 14	DEC 09,1974	
.692	406.679	04 15	DEC 09,1974	
.708	406.633	04 16	DEC 09,1974	
.725	406.726	04 16	DEC 09,1974	
.741	406.679	04 17	DEC 09,1974	
.758	406.726	04 18	DEC 09,1974	
.774	406.818	04 19	DEC 09,1974	
.791	406.679	04 20	DEC 09,1974	
.807	406.772	04 21	DEC 09,1974	
.824	406.726	04 22	DEC 09,1974	
.840	406.818	04 23	DEC 09,1974	
.857	406.772	04 24	DEC 09,1974	
.873	406.818	04 25	DEC 09,1974	
.890	406.865	04 26	DEC 09,1974	
.906	406.911	04 27	DEC 09,1974	
.923	407.652	04 28	DEC 09,1974	
.939	406.865	04 29	DEC 09,1974	
.956	406.818	04 30	DEC 09,1974	
.972	406.957	04 31	DEC 09,1974	
.989	406.911	04 32	DEC 09,1974	
1.005	406.957	04 33	DEC 09,1974	
1.022	406.911	04 34	DEC 09,1974	
1.038	407.004	04 35	DEC 09,1974	
1.054	406.957	04 36	DEC 09,1974	
1.071	407.004	04 37	DEC 09,1974	
1.087	407.142	04 38	DEC 09,1974	
1.104	407.004	04 39	DEC 09,1974	
1.120	407.004	04 40	DEC 09,1974	
1.137	407.096	04 41	DEC 09,1974	
1.153	407.004	04 42	DEC 09,1974	
1.170	407.050	04 43	DEC 09,1974	
1.186	406.957	04 44	DEC 09,1974	
1.203	407.050	04 45	DEC 09,1974	
1.219	407.189	04 46	DEC 09,1974	
1.236	407.235	04 47	DEC 09,1974	
1.252	407.142	04 48	DEC 09,1974	
1.269	407.420	04 49	DEC 09,1974	
1.285	407.235	04 50	DEC 09,1974	
1.302	407.235	04 51	DEC 09,1974	

JOB NUMBER
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DATE OF JOB
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GAUGE/RUN NUMBER
133 RUN NO. 1 DST NO. 1

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
1.318	407.235	04	52	DEC 09,1974	
1.335	407.652	04	53	DEC 09,1974	
1.351	407.281	04	54	DEC 09,1974	
1.368	407.328	04	55	DEC 09,1974	
1.384	407.281	04	56	DEC 09,1974	
1.400	407.142	04	57	DEC 09,1974	
1.417	407.420	04	58	DEC 09,1974	
1.433	407.328	04	59	DEC 09,1974	
1.450	407.420	05	00	DEC 09,1974	
1.466	407.467	05	01	DEC 09,1974	
1.483	407.328	05	02	DEC 09,1974	
1.499	407.420	05	03	DEC 09,1974	
1.516	407.467	05	04	DEC 09,1974	
1.532	407.235	05	05	DEC 09,1974	
1.549	407.420	05	06	DEC 09,1974	
1.565	407.374	05	07	DEC 09,1974	
1.582	407.420	05	08	DEC 09,1974	
1.598	407.374	05	09	DEC 09,1974	
1.615	407.467	05	10	DEC 09,1974	
1.631	407.559	05	11	DEC 09,1974	
1.648	407.420	05	12	DEC 09,1974	
1.664	407.420	05	13	DEC 09,1974	
1.681	407.559	05	14	DEC 09,1974	
1.697	407.467	05	15	DEC 09,1974	
1.714	407.698	05	16	DEC 09,1974	
1.730	407.513	05	17	DEC 09,1974	
1.746	407.513	05	18	DEC 09,1974	
1.763	407.467	05	19	DEC 09,1974	
1.779	407.281	05	20	DEC 09,1974	
1.796	407.513	05	21	DEC 09,1974	
1.812	407.513	05	22	DEC 09,1974	
1.829	407.606	05	23	DEC 09,1974	
1.845	407.606	05	24	DEC 09,1974	
1.862	407.606	05	25	DEC 09,1974	
1.878	407.513	05	26	DEC 09,1974	
1.895	407.745	05	27	DEC 09,1974	
1.911	407.745	05	28	DEC 09,1974	
1.928	407.791	05	29	DEC 09,1974	
1.944	407.837	05	30	DEC 09,1974	
1.961	407.698	05	31	DEC 09,1974	

JOB NUMBER
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GAUGE/RUN NUMBER
133 RUN NO. 1 DST NO. 1

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR MIN	DATE	COMMENTS
1.977	407.698	05 32	DEC 09,1974	
1.994	407.837	05 33	DEC 09,1974	
2.010	407.791	05 34	DEC 09,1974	
2.027	407.791	05 35	DEC 09,1974	
2.043	407.791	05 36	DEC 09,1974	
2.059	407.837	05 37	DEC 09,1974	
2.076	407.837	05 38	DEC 09,1974	
2.092	407.698	05 39	DEC 09,1974	
2.109	407.698	05 40	DEC 09,1974	
2.125	407.884	05 41	DEC 09,1974	
2.142	407.791	05 42	DEC 09,1974	
2.158	407.930	05 43	DEC 09,1974	
2.175	407.884	05 43	DEC 09,1974	
2.191	407.791	05 44	DEC 09,1974	
2.208	407.837	05 45	DEC 09,1974	
2.224	407.884	05 46	DEC 09,1974	
2.241	407.884	05 47	DEC 09,1974	
2.257	407.791	05 48	DEC 09,1974	
2.274	407.976	05 49	DEC 09,1974	
2.290	407.791	05 50	DEC 09,1974	
2.307	407.976	05 51	DEC 09,1974	
2.323	407.884	05 52	DEC 09,1974	
2.340	407.884	05 53	DEC 09,1974	
2.356	407.976	05 54	DEC 09,1974	
2.373	407.976	05 55	DEC 09,1974	
2.389	407.884	05 56	DEC 09,1974	
2.405	407.930	05 57	DEC 09,1974	
2.422	407.976	05 58	DEC 09,1974	
2.438	408.022	05 59	DEC 09,1974	
2.455	407.976	06 00	DEC 09,1974	
2.471	408.022	06 01	DEC 09,1974	
2.488	407.976	06 02	DEC 09,1974	
2.504	408.069	06 03	DEC 09,1974	
2.521	408.069	06 04	DEC 09,1974	
2.537	408.022	06 05	DEC 09,1974	
2.554	408.069	06 06	DEC 09,1974	
2.570	408.069	06 07	DEC 09,1974	
2.587	408.115	06 08	DEC 09,1974	
2.603	408.161	06 09	DEC 09,1974	
2.620	408.069	06 10	DEC 09,1974	

JOB NUMBER
SPG-11215-1

DATE OF JOB
12-9-74

GAUGE/RUN NUMBER
133 RUN NO. 1 DST NO. 1

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	TIME MIN	DATE	COMMENTS
2.636	408.022	06	11	DEC 09,1974	
2.653	408.022	06	12	DEC 09,1974	
2.669	408.069	06	13	DEC 09,1974	
2.686	408.115	06	14	DEC 09,1974	
2.702	408.115	06	15	DEC 09,1974	
2.719	408.161	06	16	DEC 09,1974	
2.735	408.208	06	17	DEC 09,1974	
2.751	408.069	06	18	DEC 09,1974	
2.768	408.069	06	19	DEC 09,1974	
2.784	408.161	06	20	DEC 09,1974	
2.801	408.208	06	21	DEC 09,1974	
2.817	408.208	06	22	DEC 09,1974	
2.834	408.208	06	23	DEC 09,1974	
2.850	408.208	06	24	DEC 09,1974	
2.867	408.300	06	25	DEC 09,1974	
2.883	408.300	06	26	DEC 09,1974	
2.900	408.254	06	27	DEC 09,1974	
2.916	408.254	06	28	DEC 09,1974	
2.933	408.254	06	29	DEC 09,1974	
2.949	408.300	06	30	DEC 09,1974	
2.966	408.300	06	31	DEC 09,1974	
2.982	408.347	06	32	DEC 09,1974	
2.999	408.347	06	33	DEC 09,1974	
3.015	408.300	06	34	DEC 09,1974	
3.032	408.393	06	35	DEC 09,1974	
3.048	408.393	06	36	DEC 09,1974	
3.065	408.347	06	37	DEC 09,1974	
3.081	408.300	06	38	DEC 09,1974	
3.097	408.347	06	39	DEC 09,1974	
3.114	408.347	06	40	DEC 09,1974	
3.130	408.347	06	41	DEC 09,1974	
3.147	408.393	06	42	DEC 09,1974	
3.163	408.439	06	43	DEC 09,1974	
3.180	408.393	06	44	DEC 09,1974	
3.196	408.393	06	45	DEC 09,1974	
3.213	408.393	06	46	DEC 09,1974	
3.229	408.393	06	47	DEC 09,1974	
3.246	408.393	06	48	DEC 09,1974	
3.262	408.439	06	49	DEC 09,1974	
3.279	408.439	06	50	DEC 09,1974	

JOB NUMBER
SPG-11215-1

DATE OF JOB
12-9-74

GAUGE/RUN NUMBER
133 RUN NO. 1 DST NO. 1

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
3,295	408,393	06	51	DEC 09,1974	
3,312	408,439	06	52	DEC 09,1974	
3,328	408,439	06	53	DEC 09,1974	
3,345	408,486	06	54	DEC 09,1974	
3,361	408,486	06	55	DEC 09,1974	
3,378	408,532	06	56	DEC 09,1974	
3,394	408,439	06	57	DEC 09,1974	
3,411	408,439	06	58	DEC 09,1974	
3,427	408,486	06	59	DEC 09,1974	
3,443	408,486	07	00	DEC 09,1974	
3,460	408,486	07	01	DEC 09,1974	
3,476	408,532	07	02	DEC 09,1974	
3,493	408.532	07	03	DEC 09,1974	
3,509	408,532	07	04	DEC 09,1974	
3,526	408.532	07	05	DEC 09,1974	
3,542	408.532	07	06	DEC 09,1974	
3,559	408.625	07	07	DEC 09,1974	
3,575	408.625	07	08	DEC 09,1974	
3,592	408,625	07	09	DEC 09,1974	
3,608	408,578	07	09	DEC 09,1974	
3,625	408,625	07	10	DEC 09,1974	
3,641	408,625	07	11	DEC 09,1974	
3,658	408,625	07	12	DEC 09,1974	
3,674	408,578	07	13	DEC 09,1974	
3,691	408,671	07	14	DEC 09,1974	
3.707	408,671	07	15	DEC 09,1974	
3,724	408.717	07	16	DEC 09,1974	
3,740	408,717	07	17	DEC 09,1974	
3,757	408,764	07	18	DEC 09,1974	
3,773	408,717	07	19	DEC 09,1974	
3,789	408,671	07	20	DEC 09,1974	
3.806	408.671	07	21	DEC 09,1974	
3,822	408,717	07	22	DEC 09,1974	
3,839	408,671	07	23	DEC 09,1974	
3,855	408.717	07	24	DEC 09,1974	
3,872	408.764	07	25	DEC 09,1974	
3.888	408.764	07	26	DEC 09,1974	
3,905	408,764	07	27	DEC 09,1974	
3.921	408,717	07	28	DEC 09,1974	
3,938	408,764	07	29	DEC 09,1974	

JOB NUMBER
SPG-11215-1

DATE OF JOB
12-9-74

GAUGE/RUN NUMBER
133 RUN NO. 1 DST NO. 1

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
3.954	408.810	07	30	DEC 09,1974	
3.971	408.764	07	31	DEC 09,1974	
3.987	408.810	07	32	DEC 09,1974	
4.004	408.810	07	33	DEC 09,1974	
4.020	408.856	07	34	DEC 09,1974	
4.037	408.856	07	35	DEC 09,1974	
4.053	408.856	07	36	DEC 09,1974	
4.070	408.856	07	37	DEC 09,1974	
4.086	408.856	07	38	DEC 09,1974	
4.103	408.810	07	39	DEC 09,1974	
4.119	408.856	07	40	DEC 09,1974	
4.135	408.856	07	41	DEC 09,1974	
4.152	408.856	07	42	DEC 09,1974	
4.168	409.366	07	43	DEC 09,1974	
4.185	409.041	07	44	DEC 09,1974	
4.201	408.949	07	45	DEC 09,1974	
4.218	408.949	07	46	DEC 09,1974	
4.234	408.995	07	47	DEC 09,1974	
4.251	408.902	07	48	DEC 09,1974	
4.267	408.949	07	49	DEC 09,1974	
4.284	411.496	07	50	DEC 09,1974	
4.300	406.170	07	51	DEC 09,1974	
4.317	408.810	07	52	DEC 09,1974	
4.333	408.949	07	53	DEC 09,1974	
4.350	411.542	07	54	DEC 09,1974	
4.366	394.915	07	55	DEC 09,1974	START JETTING
4.383	392.136	07	56	DEC 09,1974	INSIDE DRILL
4.399	391.766	07	57	DEC 09,1974	PIPE
4.416	391.766	07	58	DEC 09,1974	
4.432	391.488	07	59	DEC 09,1974	
4.449	391.395	08	00	DEC 09,1974	
4.465	391.256	08	01	DEC 09,1974	
4.481	391.302	08	02	DEC 09,1974	
4.498	391.302	08	03	DEC 09,1974	
4.514	391.302	08	04	DEC 09,1974	
4.531	391.302	08	05	DEC 09,1974	
4.547	391.210	08	06	DEC 09,1974	
4.564	391.117	08	07	DEC 09,1974	
4.580	391.117	08	08	DEC 09,1974	
4.597	391.210	08	09	DEC 09,1974	

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4.613	391.117	08	10	DEC 09,1974	
4.630	391.025	08	11	DEC 09,1974	
4.646	391.071	08	12	DEC 09,1974	
4.663	390.978	08	13	DEC 09,1974	
4.679	390.978	08	14	DEC 09,1974	
4.696	390.978	08	15	DEC 09,1974	
4.712	390.886	08	16	DEC 09,1974	
4.729	390.932	08	17	DEC 09,1974	
4.745	390.839	08	18	DEC 09,1974	
4.762	390.839	08	19	DEC 09,1974	
4.778	390.839	08	20	DEC 09,1974	
4.795	390.839	08	21	DEC 09,1974	
4.811	390.747	08	22	DEC 09,1974	
4.827	390.793	08	23	DEC 09,1974	
4.844	390.747	08	24	DEC 09,1974	
4.860	390.700	08	25	DEC 09,1974	
4.877	390.747	08	26	DEC 09,1974	
4.893	390.793	08	27	DEC 09,1974	
4.910	390.700	08	28	DEC 09,1974	
4.926	390.793	06	29	DEC 09,1974	
4.943	390.747	08	30	DEC 09,1974	
4.959	390.700	08	31	DEC 09,1974	
4.976	390.700	08	32	DEC 09,1974	
4.992	390.747	08	33	DEC 09,1974	
5.009	390.793	08	34	DEC 09,1974	
5.025	390.654	08	35	DEC 09,1974	
5.042	390.608	08	35	DEC 09,1974	
5.058	390.700	08	36	DEC 09,1974	
5.075	390.700	08	37	DEC 09,1974	
5.091	390.654	08	38	DEC 09,1974	
5.108	390.700	08	39	DEC 09,1974	
5.124	390.608	08	40	DEC 09,1974	
5.141	390.700	08	41	DEC 09,1974	
5.157	390.654	08	42	DEC 09,1974	
5.173	390.515	08	43	DEC 09,1974	
5.190	390.561	08	44	DEC 09,1974	
5.206	390.422	08	45	DEC 09,1974	
5.223	390.515	08	46	DEC 09,1974	
5.239	390.469	08	47	DEC 09,1974	
5.256	390.422	08	48	DEC 09,1974	

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5.272	390.469	08	49	DEC 09,1974	
5.289	390.561	08	50	DEC 09,1974	
5.305	390.422	08	51	DEC 09,1974	
5.322	390.330	08	52	DEC 09,1974	
5.338	390.376	08	53	DEC 09,1974	
5.355	390.422	08	54	DEC 09,1974	
5.371	390.469	08	55	DEC 09,1974	
5.388	390.376	08	56	DEC 09,1974	
5.404	390.376	08	57	DEC 09,1974	
5.421	390.469	08	58	DEC 09,1974	
5.437	390.330	08	59	DEC 09,1974	
5.454	390.376	09	00	DEC 09,1974	
5.470	390.422	09	01	DEC 09,1974	
5.487	390.422	09	02	DEC 09,1974	
5.503	390.330	09	03	DEC 09,1974	
5.519	390.376	09	04	DEC 09,1974	END JETTING INSIDE DRILL PIPE
5.536	399.222	09	05	DEC 09,1974	
5.552	405.753	09	06	DEC 09,1974	
5.569	406.309	09	07	DEC 09,1974	
5.585	406.865	09	08	DEC 09,1974	
5.602	407.235	09	09	DEC 09,1974	
5.618	407.606	09	10	DEC 09,1974	
5.635	407.837	09	11	DEC 09,1974	
5.651	407.976	09	12	DEC 09,1974	
5.668	407.884	09	13	DEC 09,1974	
5.684	407.930	09	14	DEC 09,1974	
5.701	408.022	09	15	DEC 09,1974	
5.717	408.022	09	16	DEC 09,1974	
5.734	408.115	09	17	DEC 09,1974	
5.750	408.069	09	18	DEC 09,1974	
5.767	408.069	09	19	DEC 09,1974	
5.783	408.161	09	20	DEC 09,1974	
5.800	408.161	09	21	DEC 09,1974	
5.816	408.208	09	22	DEC 09,1974	
5.833	408.161	09	23	DEC 09,1974	
5.849	408.208	09	24	DEC 09,1974	
5.865	408.254	09	25	DEC 09,1974	
5.882	408.300	09	26	DEC 09,1974	
5.898	408.300	09	27	DEC 09,1974	
5.915	408.254	09	28	DEC 09,1974	

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5,931	408,347	09	29	DEC 09,1974	
5,948	408,393	09	30	DEC 09,1974	
5,964	408,347	09	31	DEC 09,1974	
5,981	408,393	09	32	DEC 09,1974	
5,997	408,439	09	33	DEC 09,1974	
6,014	408,439	09	34	DEC 09,1974	
6,030	408,486	09	35	DEC 09,1974	
6,047	408,439	09	36	DEC 09,1974	
6,063	408,532	09	37	DEC 09,1974	
6,080	408,578	09	38	DEC 09,1974	
6,096	408,625	09	39	DEC 09,1974	
6,113	408,578	09	40	DEC 09,1974	
6,129	408,532	09	41	DEC 09,1974	
6,146	408,625	09	42	DEC 09,1974	
6,162	408,625	09	43	DEC 09,1974	
6.179	408.625	09	44	DEC 09,1974	
6,195	408,671	09	45	DEC 09,1974	
6,211	408,671	09	46	DEC 09,1974	
6,228	408,625	09	47	DEC 09,1974	
6,244	408,717	09	48	DEC 09,1974	
6,261	408,810	09	49	DEC 09,1974	
6,277	408,671	09	50	DEC 09,1974	
6,294	408,856	09	51	DEC 09,1974	
6,310	408,810	09	52	DEC 09,1974	
6,327	408,902	09	53	DEC 09,1974	
6,343	408,717	09	54	DEC 09,1974	
6,360	408,810	09	55	DEC 09,1974	
6,376	408,949	09	56	DEC 09,1974	
6,393	408,949	09	57	DEC 09,1974	
6,409	408,949	09	58	DEC 09,1974	
6,426	408,902	09	59	DEC 09,1974	
6,442	408,902	10	00	DEC 09,1974	
6,459	408,902	10	01	DEC 09,1974	
6,475	408,949	10	02	DEC 09,1974	
6,492	408,902	10	02	DEC 09,1974	
6,508	408,949	10	03	DEC 09,1974	
6,524	409,273	10	04	DEC 09,1974	
6,541	408,764	10	05	DEC 09,1974	
6,557	409,088	10	06	DEC 09,1974	
6.574	408,995	10	07	DEC 09,1974	

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6.590	409.088	10	08	DEC 09,1974	
6.607	408.393	10	09	DEC 09,1974	
6.623	409.041	10	10	DEC 09,1974	
6.640	408.902	10	11	DEC 09,1974	
6.656	409.088	10	12	DEC 09,1974	
6.673	408.949	10	13	DEC 09,1974	
6.689	409.088	10	14	DEC 09,1974	
6.706	409.041	10	15	DEC 09,1974	
6.722	409.134	10	16	DEC 09,1974	
6.739	409.319	10	17	DEC 09,1974	
6.755	409.227	10	18	DEC 09,1974	
6.772	409.273	10	19	DEC 09,1974	
6.788	409.180	10	20	DEC 09,1974	
6.805	409.180	10	21	DEC 09,1974	
6.821	409.088	10	22	DEC 09,1974	
6.838	409.227	10	23	DEC 09,1974	
6.854	409.273	10	24	DEC 09,1974	
6.870	409.319	10	25	DEC 09,1974	
6.887	409.319	10	26	DEC 09,1974	
6.903	409.134	10	27	DEC 09,1974	
6.920	409.227	10	28	DEC 09,1974	
6.936	409.273	10	29	DEC 09,1974	
6.953	409.319	10	30	DEC 09,1974	
6.969	409.319	10	31	DEC 09,1974	
6.986	409.273	10	32	DEC 09,1974	
7.002	409.319	10	33	DEC 09,1974	
7.019	409.319	10	34	DEC 09,1974	
7.035	409.412	10	35	DEC 09,1974	
7.052	409.366	10	36	DEC 09,1974	
7.068	409.273	10	37	DEC 09,1974	
7.085	409.458	10	38	DEC 09,1974	
7.101	409.458	10	39	DEC 09,1974	
7.118	409.412	10	40	DEC 09,1974	
7.134	409.366	10	41	DEC 09,1974	
7.151	409.458	10	42	DEC 09,1974	
7.167	409.505	10	43	DEC 09,1974	
7.184	409.412	10	44	DEC 09,1974	
7.200	409.458	10	45	DEC 09,1974	
7.216	409.505	10	46	DEC 09,1974	
7.233	409.551	10	47	DEC 09,1974	

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7.249	409.551	10	48	DEC 09,1974	
7.266	409.551	10	49	DEC 09,1974	
7.282	409.551	10	50	DEC 09,1974	
7.299	409.644	10	51	DEC 09,1974	
7.315	409.551	10	52	DEC 09,1974	
7.332	409.551	10	53	DEC 09,1974	
7.348	409.551	10	54	DEC 09,1974	
7.365	409.644	10	55	DEC 09,1974	
7.381	409.644	10	56	DEC 09,1974	
7.398	409.597	10	57	DEC 09,1974	
7.414	409.551	10	58	DEC 09,1974	
7.431	409.690	10	59	DEC 09,1974	
7.447	409.690	11	00	DEC 09,1974	
7.464	409.736	11	01	DEC 09,1974	
7.480	409.644	11	02	DEC 09,1974	
7.497	409.551	11	03	DEC 09,1974	
7.513	409.644	11	04	DEC 09,1974	
7.530	409.597	11	05	DEC 09,1974	
7.546	409.644	11	06	DEC 09,1974	
7.562	409.690	11	07	DEC 09,1974	
7.579	409.644	11	08	DEC 09,1974	
7.595	409.690	11	09	DEC 09,1974	
7.612	409.736	11	10	DEC 09,1974	
7.628	409.690	11	11	DEC 09,1974	
7.645	409.736	11	12	DEC 09,1974	
7.661	410.060	11	13	DEC 09,1974	2 G/M INSIDE DRILL PIPE
7.678	410.292	11	14	DEC 09,1974	
7.694	410.338	11	15	DEC 09,1974	
7.711	410.431	11	16	DEC 09,1974	
7.727	410.431	11	17	DEC 09,1974	
7.744	410.524	11	18	DEC 09,1974	
7.760	410.616	11	19	DEC 09,1974	
7.777	410.616	11	20	DEC 09,1974	
7.793	410.662	11	21	DEC 09,1974	
7.810	410.662	11	22	DEC 09,1974	
7.826	410.662	11	23	DEC 09,1974	
7.843	410.709	11	24	DEC 09,1974	
7.859	411.079	11	25	DEC 09,1974	
7.876	410.894	11	26	DEC 09,1974	
7.892	410.755	11	27	DEC 09,1974	

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7.908	410.848	11	28	DEC 09,1974	5 G/M INSIDE
7.925	410.940	11	28	DEC 09,1974	DRILL PIPE
7.941	411.404	11	29	DEC 09,1974	
7.958	411.265	11	30	DEC 09,1974	
7.974	411.357	11	31	DEC 09,1974	
7.991	412.098	11	32	DEC 09,1974	10 G/M INSIDE
8.007	424.928	11	33	DEC 09,1974	DRILL PIPE
8.024	425.206	11	34	DEC 09,1974	
8.040	425.576	11	35	DEC 09,1974	
8.057	425.715	11	36	DEC 09,1974	
8.073	425.993	11	37	DEC 09,1974	
8.090	426.039	11	38	DEC 09,1974	
8.106	426.549	11	39	DEC 09,1974	
8.123	426.919	11	40	DEC 09,1974	
8.139	427.660	11	41	DEC 09,1974	
8.156	436.414	11	42	DEC 09,1974	
8.172	445.214	11	43	DEC 09,1974	
8.189	446.974	11	44	DEC 09,1974	
8.205	447.808	11	45	DEC 09,1974	
8.222	449.151	11	46	DEC 09,1974	
8.238	450.216	11	47	DEC 09,1974	
8.254	451.096	11	48	DEC 09,1974	
8.271	451.235	11	49	DEC 09,1974	
8.287	452.254	11	50	DEC 09,1974	
8.304	451.745	11	51	DEC 09,1974	
8.320	456.886	11	52	DEC 09,1974	CONTINUED JETT
8.337	467.492	11	53	DEC 09,1974	ING AT UNKNOWN
8.353	467.724	11	54	DEC 09,1974	RATE
8.370	468.696	11	55	DEC 09,1974	
8.386	466.797	11	56	DEC 09,1974	
8.403	465.454	11	57	DEC 09,1974	
8.419	466.288	11	58	DEC 09,1974	
8.436	467.631	11	59	DEC 09,1974	
8.452	466.242	12	00	DEC 09,1974	
8.469	464.991	12	01	DEC 09,1974	
8.485	465.547	12	02	DEC 09,1974	
8.502	470.086	12	03	DEC 09,1974	
8.518	470.132	12	04	DEC 09,1974	
8.535	470.734	12	05	DEC 09,1974	
8.551	470.919	12	06	DEC 09,1974	

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8.568	468.974	12	07	DEC 09,1974	
8.584	468.789	12	08	DEC 09,1974	
8.600	467.029	12	09	DEC 09,1974	
8.617	467.631	12	10	DEC 09,1974	
8.633	467.909	12	11	DEC 09,1974	
8.650	478.469	12	12	DEC 09,1974	
8.666	480.877	12	13	DEC 09,1974	
8.683	479.905	12	14	DEC 09,1974	
8.699	479.627	12	15	DEC 09,1974	
8.716	481.896	12	16	DEC 09,1974	
8.732	483.656	12	17	DEC 09,1974	
8.749	481.804	12	18	DEC 09,1974	
8.765	483.610	12	19	DEC 09,1974	
8.782	482.823	12	20	DEC 09,1974	
8.798	483.703	12	21	DEC 09,1974	
8.815	483.054	12	22	DEC 09,1974	
8.831	472.679	12	23	DEC 09,1974	
8.848	473.930	12	24	DEC 09,1974	
8.864	472.865	12	25	DEC 09,1974	
8.881	473.189	12	26	DEC 09,1974	
8.897	473.791	12	27	DEC 09,1974	
8.914	473.189	12	28	DEC 09,1974	
8.930	472.540	12	29	DEC 09,1974	
8.946	474.208	12	30	DEC 09,1974	
8.963	468.696	12	31	DEC 09,1974	
8.979	444.010	12	32	DEC 09,1974	
8.996	445.955	12	33	DEC 09,1974	
9.012	448.317	12	34	DEC 09,1974	
9.029	446.650	12	35	DEC 09,1974	
9.045	448.780	12	36	DEC 09,1974	
9.062	446.928	12	37	DEC 09,1974	
9.078	449.105	12	38	DEC 09,1974	
9.095	446.881	12	39	DEC 09,1974	
9.111	448.919	12	40	DEC 09,1974	
9.128	417.841	12	41	DEC 09,1974	
9.144	413.534	12	42	DEC 09,1974	
9.161	413.071	12	43	DEC 09,1974	
9.177	413.117	12	44	DEC 09,1974	
9.194	413.025	12	45	DEC 09,1974	
9.210	412.978	12	46	DEC 09,1974	

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9.227	412.561	12	47	DEC 09,1974	
9.243	412.422	12	48	DEC 09,1974	
9.260	412.469	12	49	DEC 09,1974	
9.276	412.422	12	50	DEC 09,1974	
9.292	412.330	12	51	DEC 09,1974	
9.309	412.376	12	52	DEC 09,1974	
9.325	412.422	12	53	DEC 09,1974	
9.342	412.330	12	54	DEC 09,1974	
9.358	412.469	12	55	DEC 09,1974	
9.375	412.376	12	55	DEC 09,1974	
9.391	412.376	12	56	DEC 09,1974	
9.408	412.284	12	57	DEC 09,1974	
9.424	412.330	12	58	DEC 09,1974	
9.441	412.284	12	59	DEC 09,1974	
9.457	412.237	13	00	DEC 09,1974	
9.474	412.284	13	01	DEC 09,1974	
9.490	412.284	13	02	DEC 09,1974	
9.507	412.237	13	03	DEC 09,1974	
9.523	412.284	13	04	DEC 09,1974	
9.540	412.098	13	05	DEC 09,1974	
9.556	412.191	13	06	DEC 09,1974	
9.573	412.145	13	07	DEC 09,1974	
9.589	412.145	13	08	DEC 09,1974	
9.606	412.145	13	09	DEC 09,1974	
9.622	412.145	13	10	DEC 09,1974	
9.638	412.191	13	11	DEC 09,1974	
9.655	412.145	13	12	DEC 09,1974	
9.671	412.098	13	13	DEC 09,1974	
9.688	412.098	13	14	DEC 09,1974	
9.704	412.052	13	15	DEC 09,1974	
9.721	412.006	13	16	DEC 09,1974	
9.737	412.098	13	17	DEC 09,1974	
9.754	412.052	13	18	DEC 09,1974	
9.770	411.959	13	19	DEC 09,1974	END INJECTION
9.787	411.959	13	20	DEC 09,1974	
9.803	412.006	13	21	DEC 09,1974	
9.820	412.052	13	22	DEC 09,1974	
9.836	411.913	13	23	DEC 09,1974	
9.853	411.959	13	24	DEC 09,1974	
9.869	412.006	13	25	DEC 09,1974	

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    DELTA    PRESSURE                         TIME     DATE               COMMENTS
    TIME      (PSI)                         HR MIN

    9,886    411,913                        13  26 DEC 09,1974
    9,902    411,913                        13  27 DEC 09,1974
    9,919    411,867                        13  28 DEC 09,1974
    9,935    411,959                        13  29 DEC 09,1974
    9,952    411,959                        13  30 DEC 09,1974
    9,968    411,913                        13  31 DEC 09,1974
    9,984    411,867                        13  32 DEC 09,1974
   10,001    412,052                        13  33 DEC 09,1974
   10,017    412,052                        13  34 DEC 09,1974
   10,034    412,052                        13  35 DEC 09,1974
   10,050    412,098                        13  36 DEC 09,1974
   10,067    412,191                        13  37 DEC 09,1974
   10,083    412,098                        13  38 DEC 09,1974   END OF TEST
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                          613 POINTS REPORTED THIS RUN

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SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

PREPARED FOR

ATLANTIC RICHFIELD COMPANY

WELL NUMBER	FEDERAL SG-20
FIELD/LEASE	TRACT C-B SORGHUM GULCH
COUNTY/PARISH	RIO BLANCO
STATE	COLORADO
TYPE OF TEST	DRILL STEM
REFERENCE ELEV	GROUND LEVEL

ADDITIONAL INFORMATION

USED GAUGE 194 WITH 2000 LB. ELEMENT

GAUGE DEPTH IS 848 FT. OUTSIDE DRILL PIPE

ABOVE PACKER

TEST INTERVAL 848 FT. TO 894 FT.

PACKER DEPTH 894 TO 896 FT.

INITIAL HYDROSTATIC IS 357.11 PSI

FINAL HYDROSTATIC IS 361.73

652 POINTS REPORTED THIS JOB

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JOB NUMBER                                                          DATE OF JOB
8PG-11215-1                                                             12-9-74

GAUGE/RUN NUMBER                                                    DATE OF RUN
194  RUN NO,1  DST NO, 1                                                12-9-74

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     DELTA    PRESSURE                    TIME      DATE              COMMENTS
     TIME     (PSI)                      HR MIN

     0,000    367,677                    02  55 DEC 09,1974   INITIAL SHUTIN
      ,016    367,724                    02  56 DEC 09,1974
      ,032    367,724                    02  57 DEC 09,1974
      ,049    367,770                    02  58 DEC 09,1974
      ,065    367,817                    02  59 DEC 09,1974
      ,081    367,817                    03  00 DEC 09,1974
      ,097    367,817                    03  01 DEC 09,1974
      ,114    367,724                    03  02 DEC 09,1974
      ,130    367,817                    03  03 DEC 09,1974
      ,146    367,817                    03  04 DEC 09,1974
      ,162    367,770                    03  05 DEC 09,1974
      ,179    367,817                    03  06 DEC 09,1974
      ,195    367,817                    03  07 DEC 09,1974
      ,211    367,817                    03  08 DEC 09,1974
      ,227    367,863                    03  09 DEC 09,1974
      ,243    367,863                    03  10 DEC 09,1974
      ,260    367.817                    03  11 DEC 09,1974
      ,276    367,863                    03  12 DEC 09,1974
      ,292    367,863                    03  13 DEC 09,1974
      ,308    367,863                    03  14 DEC 09,1974
      ,325    367,817                    03  14 DEC 09,1974
      ,341    367,910                    03  15 DEC 09,1974
      ,357    367,863                    03  16 DEC 09,1974
      ,373    367,910                    03  17 DEC 09,1974
      ,389    367,910                    03  18 DEC 09,1974
      ,406    367,863                    03  19 DEC 09,1974
      ,422    367,863                    03  20 DEC 09,1974
      ,438    367,863                    03  21 DEC 09,1974
      ,454    367,910                    03  22 DEC 09,1974
      ,471    367,863                    03  23 DEC 09,1974
      ,487    367,910                    03  24 DEC 09,1974
      ,503    367,910                    03  25 DEC 09,1974
      ,519    367,910                    03  26 DEC 09,1974
      ,536    367,910                    03  27 DEC 09,1974
      ,552    368,003                    03  28 DEC 09,1974
      ,568    368.096                    03  29 DEC 09,1974
      ,584    368,142                    03  30 DEC 09,1974
      ,600    368,235                    03  31 DEC 09,1974
      ,617    368,189                    03  32 DEC 09,1974   END SHUT IN
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                        39 POINTS REPORTED THIS RUN
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DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0.000	368.235	03	33	DEC 09,1974	FLOW START
.016	368.189	03	34	DEC 09,1974	
.033	368.235	03	35	DEC 09,1974	
.049	368.235	03	36	DEC 09,1974	
.066	368.282	03	37	DEC 09,1974	
.082	368.282	03	38	DEC 09,1974	
.099	368.328	03	39	DEC 09,1974	
.115	368.282	03	40	DEC 09,1974	
.132	368.282	03	41	DEC 09,1974	
.148	368.328	03	42	DEC 09,1974	
.165	368.328	03	43	DEC 09,1974	
.181	368.282	03	44	DEC 09,1974	
.198	368.282	03	45	DEC 09,1974	
.214	368.375	03	46	DEC 09,1974	
.231	368.375	03	47	DEC 09,1974	
.247	368.421	03	48	DEC 09,1974	
.264	368.375	03	49	DEC 09,1974	
.280	368.421	03	50	DEC 09,1974	
.297	368.375	03	51	DEC 09,1974	
.313	368.421	03	52	DEC 09,1974	
.330	368.375	03	53	DEC 09,1974	
.346	368.468	03	54	DEC 09,1974	
.362	368.468	03	55	DEC 09,1974	
.379	368.421	03	56	DEC 09,1974	
.395	368.375	03	57	DEC 09,1974	
.412	368.421	03	58	DEC 09,1974	
.428	368.421	03	59	DEC 09,1974	
.445	368.468	04	00	DEC 09,1974	
.461	368.468	04	01	DEC 09,1974	
.478	368.468	04	02	DEC 09,1974	
.494	368.468	04	03	DEC 09,1974	
.511	368.468	04	04	DEC 09,1974	
.527	368.468	04	05	DEC 09,1974	
.544	368.468	04	06	DEC 09,1974	
.560	368.468	04	07	DEC 09,1974	
.577	368.561	04	08	DEC 09,1974	
.593	368.514	04	09	DEC 09,1974	
.610	368.514	04	10	DEC 09,1974	
.626	368.514	04	11	DEC 09,1974	
.643	368.514	04	12	DEC 09,1974	

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DELTA TIME	PRESSURE (PSI)	TIME HR	TIME MIN	DATE	COMMENTS
,659	368,514	04	13	DEC 09,1974	
,676	368,514	04	14	DEC 09,1974	
,692	368,514	04	15	DEC 09,1974	
,708	368,514	04	16	DEC 09,1974	
,725	368,561	04	16	DEC 09,1974	
,741	368,654	04	17	DEC 09,1974	
,758	368,561	04	18	DEC 09,1974	
,774	368,561	04	19	DEC 09,1974	
,791	368,607	04	20	DEC 09,1974	
,807	368,607	04	21	DEC 09,1974	
,824	368,654	04	22	DEC 09,1974	
,840	368,700	04	23	DEC 09,1974	
,857	368,654	04	24	DEC 09,1974	
,873	368,654	04	25	DEC 09,1974	
,890	368,607	04	26	DEC 09,1974	
,906	368,654	04	27	DEC 09,1974	
,923	368,654	04	28	DEC 09,1974	
,939	368,654	04	29	DEC 09,1974	
,956	368,654	04	30	DEC 09,1974	
,972	368,654	04	31	DEC 09,1974	
,989	368,654	04	32	DEC 09,1974	
1,005	368,654	04	33	DEC 09,1974	
1,022	368,654	04	34	DEC 09,1974	
1,038	368,654	04	35	DEC 09,1974	
1,054	368,793	04	36	DEC 09,1974	
1,071	368,747	04	37	DEC 09,1974	
1,087	368,747	04	38	DEC 09,1974	
1,104	368,793	04	39	DEC 09,1974	
1,120	368,840	04	40	DEC 09,1974	
1,137	368,747	04	41	DEC 09,1974	
1,153	368,747	04	42	DEC 09,1974	
1,170	368,793	04	43	DEC 09,1974	
1,186	368,886	04	44	DEC 09,1974	
1,203	368,840	04	45	DEC 09,1974	
1,219	368,793	04	46	DEC 09,1974	
1,236	368,793	04	47	DEC 09,1974	
1,252	368,793	04	48	DEC 09,1974	
1,269	368,840	04	49	DEC 09,1974	
1,285	368,840	04	50	DEC 09,1974	
1,302	368,793	04	51	DEC 09,1974	

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DELTA TIME	PRESSURE (PSI)	TIME		DATE	COMMENTS
		HR	MIN		
1,318	368,886	04	52	DEC 09,1974	
1,335	368,886	04	53	DEC 09,1974	
1,351	368,886	04	54	DEC 09,1974	
1,368	368,840	04	55	DEC 09,1974	
1,384	368,886	04	56	DEC 09,1974	
1,400	368,886	04	57	DEC 09,1974	
1,417	368,933	04	58	DEC 09,1974	
1,433	368,979	04	59	DEC 09,1974	
1,450	368,979	05	00	DEC 09,1974	
1,466	368,979	05	01	DEC 09,1974	
1,483	368,933	05	02	DEC 09,1974	
1,499	368,979	05	03	DEC 09,1974	
1,516	368,933	05	04	DEC 09,1974	
1,532	368,979	05	05	DEC 09,1974	
1,549	368,979	05	06	DEC 09,1974	
1,565	368,979	05	07	DEC 09,1974	
1,582	368,979	05	08	DEC 09,1974	
1,598	369,026	05	09	DEC 09,1974	
1,615	369,026	05	10	DEC 09,1974	
1,631	369,026	05	11	DEC 09,1974	
1,648	369,026	05	12	DEC 09,1974	
1,664	368,979	05	13	DEC 09,1974	
1,681	369,026	05	14	DEC 09,1974	
1,697	368,979	05	15	DEC 09,1974	
1,714	368,979	05	16	DEC 09,1974	
1,730	369,026	05	17	DEC 09,1974	
1,746	369,072	05	18	DEC 09,1974	
1,763	369,072	05	19	DEC 09,1974	
1,779	369,072	05	20	DEC 09,1974	
1,796	369,119	05	21	DEC 09,1974	
1,812	369,119	05	22	DEC 09,1974	
1,829	369,119	05	23	DEC 09,1974	
1,845	369,165	05	24	DEC 09,1974	
1,862	369,119	05	25	DEC 09,1974	
1,878	369,119	05	26	DEC 09,1974	
1,895	369,119	05	27	DEC 09,1974	
1,911	369,119	05	28	DEC 09,1974	
1,928	369,119	05	29	DEC 09,1974	
1,944	369,119	05	30	DEC 09,1974	
1,961	369,119	05	31	DEC 09,1974	

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JOB NUMBER                                                              DATE OF JOB
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GAUGE/RUN NUMBER                                                        DATE OF RUN
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      DELTA    PRESSURE                    TIME     DATE                 COMMENTS
      TIME      (PSI)                     HR MIN

      1.977    369.119                    05  32 DEC 09,1974
      1.994    369.072                    05  33 DEC 09,1974
      2.010    369.119                    05  34 DEC 09,1974
      2.027    369.165                    05  35 DEC 09,1974
      2.043    369.212                    05  36 DEC 09,1974
      2.059    369.258                    05  37 DEC 09,1974
      2.076    369.212                    05  38 DEC 09,1974
      2.092    369.212                    05  39 DEC 09,1974
      2.109    369.258                    05  40 DEC 09,1974
      2.125    369.305                    05  41 DEC 09,1974
      2.142    369.305                    05  42 DEC 09,1974
      2.158    369.258                    05  43 DEC 09,1974
      2.175    369.305                    05  43 DEC 09,1974
      2.191    369.258                    05  44 DEC 09,1974
      2.208    369.351                    05  45 DEC 09,1974
      2.224    369.305                    05  46 DEC 09,1974
      2.241    369.258                    05  47 DEC 09,1974
      2.257    369.351                    05  48 DEC 09,1974
      2.274    369.305                    05  49 DEC 09,1974
      2.290    369.351                    05  50 DEC 09,1974
      2.307    369.351                    05  51 DEC 09,1974
      2.323    369.351                    05  52 DEC 09,1974
      2.340    369.351                    05  53 DEC 09,1974
      2.356    369.398                    05  54 DEC 09,1974
      2.373    369.351                    05  55 DEC 09,1974
      2.389    369.398                    05  56 DEC 09,1974
      2.405    369.351                    05  57 DEC 09,1974
      2.422    369.351                    05  58 DEC 09,1974
      2.438    369.351                    05  59 DEC 09,1974
      2.455    369.398                    06  00 DEC 09,1974
      2.471    369.351                    06  01 DEC 09,1974
      2.488    369.398                    06  02 DEC 09,1974
      2.504    369.398                    06  03 DEC 09,1974
      2.521    369.398                    06  04 DEC 09,1974
      2.537    369.398                    06  05 DEC 09,1974
      2.554    369.351                    06  06 DEC 09,1974
      2.570    369.398                    06  07 DEC 09,1974
      2.587    369.351                    06  08 DEC 09,1974
      2.603    369.398                    06  09 DEC 09,1974
      2.620    369.351                    06  10 DEC 09,1974
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DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
2.636	369.351	06	11	DEC 09,1974	
2.653	369.398	06	12	DEC 09,1974	
2.669	369.444	06	13	DEC 09,1974	
2.686	369.444	06	14	DEC 09,1974	
2.702	369.444	06	15	DEC 09,1974	
2.719	369.491	06	16	DEC 09,1974	
2.735	369.491	06	17	DEC 09,1974	
2.751	369.444	06	18	DEC 09,1974	
2.768	369.491	06	19	DEC 09,1974	
2.784	369.491	06	20	DEC 09,1974	
2.801	369.491	06	21	DEC 09,1974	
2.817	369.491	06	22	DEC 09,1974	
2.834	369.537	06	23	DEC 09,1974	
2.850	369.537	06	24	DEC 09,1974	
2.867	369.537	06	25	DEC 09,1974	
2.883	369.537	06	26	DEC 09,1974	
2.900	369.537	06	27	DEC 09,1974	
2.916	369.630	06	28	DEC 09,1974	
2.933	369.584	06	29	DEC 09,1974	
2.949	369.584	06	30	DEC 09,1974	
2.966	369.630	06	31	DEC 09,1974	
2.982	369.584	06	32	DEC 09,1974	
2.999	369.584	06	33	DEC 09,1974	
3.015	369.584	06	34	DEC 09,1974	
3.032	369.584	06	35	DEC 09,1974	
3.048	369.584	06	36	DEC 09,1974	
3.065	369.584	06	37	DEC 09,1974	
3.081	369.630	06	38	DEC 09,1974	
3.097	369.630	06	39	DEC 09,1974	
3.114	369.630	06	40	DEC 09,1974	
3.130	369.630	06	41	DEC 09,1974	
3.147	369.677	06	42	DEC 09,1974	
3.163	369.677	06	43	DEC 09,1974	
3.180	369.723	06	44	DEC 09,1974	
3.196	369.723	06	45	DEC 09,1974	
3.213	369.677	06	46	DEC 09,1974	
3.229	369.723	06	47	DEC 09,1974	
3.246	369.723	06	48	DEC 09,1974	
3.262	369.723	06	49	DEC 09,1974	
3.279	369.677	06	50	DEC 09,1974	

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DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
3.295	369.723	06	51	DEC 09,1974	
3.312	369.723	06	52	DEC 09,1974	
3.328	369.816	06	53	DEC 09,1974	
3.345	369.816	06	54	DEC 09,1974	
3.361	369.816	06	55	DEC 09,1974	
3.378	369.816	06	56	DEC 09,1974	
3.394	369.816	06	57	DEC 09,1974	
3.411	369.816	06	58	DEC 09,1974	
3.427	369.816	06	59	DEC 09,1974	
3.443	369.816	07	00	DEC 09,1974	
3.460	369.816	07	01	DEC 09,1974	
3.476	369.816	07	02	DEC 09,1974	
3.493	369.770	07	03	DEC 09,1974	
3.509	369.816	07	04	DEC 09,1974	
3.526	369.816	07	05	DEC 09,1974	
3.542	369.816	07	06	DEC 09,1974	
3.559	369.770	07	07	DEC 09,1974	
3.575	369.816	07	08	DEC 09,1974	
3.592	369.816	07	09	DEC 09,1974	
3.608	369.816	07	09	DEC 09,1974	
3.625	369.863	07	10	DEC 09,1974	
3.641	369.816	07	11	DEC 09,1974	
3.658	369.816	07	12	DEC 09,1974	
3.674	369.909	07	13	DEC 09,1974	
3.691	369.909	07	14	DEC 09,1974	
3.707	369.909	07	15	DEC 09,1974	
3.724	369.909	07	16	DEC 09,1974	
3.740	369.909	07	17	DEC 09,1974	
3.757	369.909	07	18	DEC 09,1974	
3.773	369.956	07	19	DEC 09,1974	
3.789	369.956	07	20	DEC 09,1974	
3.806	370.002	07	21	DEC 09,1974	
3.822	369.956	07	22	DEC 09,1974	
3.839	370.002	07	23	DEC 09,1974	
3.855	370.002	07	24	DEC 09,1974	
3.872	370.002	07	25	DEC 09,1974	
3.888	370.002	07	26	DEC 09,1974	
3.905	370.002	07	27	DEC 09,1974	
3.921	370.002	07	28	DEC 09,1974	
3.938	370.002	07	29	DEC 09,1974	

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TIME	(PSI)	HR	MIN		
3.954	370.002	07	30	DEC 09,1974	
3.971	370.002	07	31	DEC 09,1974	
3.987	370.002	07	32	DEC 09,1974	
4.004	369.956	07	33	DEC 09,1974	
4.020	370.002	07	34	DEC 09,1974	
4.037	370.002	07	35	DEC 09,1974	
4.053	370.049	07	36	DEC 09,1974	
4.070	370.049	07	37	DEC 09,1974	
4.086	370.049	07	38	DEC 09,1974	
4.103	370.049	07	39	DEC 09,1974	
4.119	370.049	07	40	DEC 09,1974	
4.135	370.095	07	41	DEC 09,1974	
4.152	370.095	07	42	DEC 09,1974	
4.168	370.049	07	43	DEC 09,1974	
4.185	370.142	07	44	DEC 09,1974	
4.201	370.095	07	45	DEC 09,1974	
4.218	370.095	07	46	DEC 09,1974	
4.234	370.049	07	47	DEC 09,1974	
4.251	370.095	07	48	DEC 09,1974	
4.267	370.095	07	49	DEC 09,1974	
4.284	370.095	07	50	DEC 09,1974	
4.300	370.095	07	51	DEC 09,1974	
4.317	370.095	07	52	DEC 09,1974	
4.333	370.142	07	53	DEC 09,1974	
4.350	370.095	07	54	DEC 09,1974	
4.366	370.049	07	55	DEC 09,1974	START JETTING
4.383	370.095	07	56	DEC 09,1974	INSIDE DRILL
4.399	370.142	07	57	DEC 09,1974	PIPE
4.416	370.095	07	58	DEC 09,1974	
4.432	370.142	07	59	DEC 09,1974	
4.449	370.188	08	00	DEC 09,1974	
4.465	370.142	08	01	DEC 09,1974	
4.481	370.188	08	02	DEC 09,1974	
4.498	370.188	08	03	DEC 09,1974	
4.514	370.188	08	04	DEC 09,1974	
4.531	370.188	08	05	DEC 09,1974	
4.547	370.235	08	06	DEC 09,1974	
4.564	370.188	08	07	DEC 09,1974	
4.580	370.235	08	08	DEC 09,1974	
4.597	370.188	08	09	DEC 09,1974	

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4.613	370.188	08	10	DEC 09,1974	
4.630	370.188	08	11	DEC 09,1974	
4.646	370.235	08	12	DEC 09,1974	
4.663	370.235	08	13	DEC 09,1974	
4.679	370.281	08	14	DEC 09,1974	
4.696	370.281	08	15	DEC 09,1974	
4.712	370.235	08	16	DEC 09,1974	
4.729	370.281	08	17	DEC 09,1974	
4.745	370.235	08	18	DEC 09,1974	
4.762	370.188	08	19	DEC 09,1974	
4.778	370.235	08	20	DEC 09,1974	
4.795	370.235	08	21	DEC 09,1974	
4.811	370.235	08	22	DEC 09,1974	
4.827	370.235	08	23	DEC 09,1974	
4.844	370.235	08	24	DEC 09,1974	
4.860	370.235	08	25	DEC 09,1974	
4.877	370.235	08	26	DEC 09,1974	
4.893	370.235	08	27	DEC 09,1974	
4.910	370.281	08	28	DEC 09,1974	
4.926	370.235	08	29	DEC 09,1974	
4.943	370.281	08	30	DEC 09,1974	
4.959	370.281	08	31	DEC 09,1974	
4.976	370.328	08	32	DEC 09,1974	
4.992	370.328	08	33	DEC 09,1974	
5.009	370.281	08	34	DEC 09,1974	
5.025	370.281	08	35	DEC 09,1974	
5.042	370.328	08	35	DEC 09,1974	
5.058	370.328	08	36	DEC 09,1974	
5.075	370.281	08	37	DEC 09,1974	
5.091	370.328	08	38	DEC 09,1974	
5.108	370.281	08	39	DEC 09,1974	
5.124	370.281	08	40	DEC 09,1974	
5.141	370.328	08	41	DEC 09,1974	
5.157	370.281	08	42	DEC 09,1974	
5.173	370.281	08	43	DEC 09,1974	
5.190	370.328	08	44	DEC 09,1974	
5.206	370.328	08	45	DEC 09,1974	
5.223	370.328	08	46	DEC 09,1974	
5.239	370.281	08	47	DEC 09,1974	
5.256	370.281	08	48	DEC 09,1974	

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DELTA TIME	PRESSURE (PSI)	TIME HR MIN	DATE	COMMENTS
5,272	370,374	08 49	DEC 09,1974	
5,289	370,374	08 50	DEC 09,1974	
5,305	370,374	08 51	DEC 09,1974	
5,322	370,374	08 52	DEC 09,1974	
5,338	370,374	08 53	DEC 09,1974	
5,355	370,328	08 54	DEC 09,1974	
5,371	370,374	08 55	DEC 09,1974	
5,388	370,421	08 56	DEC 09,1974	
5,404	370,421	08 57	DEC 09,1974	
5,421	370,374	08 58	DEC 09,1974	
5,437	370,374	08 59	DEC 09,1974	
5,454	370,421	09 00	DEC 09,1974	
5,470	370,467	09 01	DEC 09,1974	
5,487	370,421	09 02	DEC 09,1974	
5,503	370,421	09 03	DEC 09,1974	
5,519	370,421	09 04	DEC 09,1974	END JETTING
5,536	370,467	09 05	DEC 09,1974	INSIDE DRILL
5,552	370,467	09 06	DEC 09,1974	PIPE
5,569	370,514	09 07	DEC 09,1974	
5,585	370,514	09 08	DEC 09,1974	
5,602	370,421	09 09	DEC 09,1974	
5,618	370,467	09 10	DEC 09,1974	
5,635	370,467	09 11	DEC 09,1974	
5,651	370,467	09 12	DEC 09,1974	
5,668	370,514	09 13	DEC 09,1974	
5,684	370,467	09 14	DEC 09,1974	
5,701	370,467	09 15	DEC 09,1974	
5,717	370,514	09 16	DEC 09,1974	
5,734	370,560	09 17	DEC 09,1974	
5,750	370,514	09 18	DEC 09,1974	
5,767	370,467	09 19	DEC 09,1974	
5,783	370,514	09 20	DEC 09,1974	
5,800	370,514	09 21	DEC 09,1974	
5,816	370,607	09 22	DEC 09,1974	
5,833	370,514	09 23	DEC 09,1974	
5,849	370,514	09 24	DEC 09,1974	
5,865	370,607	09 25	DEC 09,1974	
5,882	370,560	09 26	DEC 09,1974	
5,898	370,467	09 27	DEC 09,1974	
5,915	370,514	09 28	DEC 09,1974	

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PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
5,931	370,514	09	29	DEC 09,1974	
5,948	370,560	09	30	DEC 09,1974	
5,964	370,607	09	31	DEC 09,1974	
5,981	370,514	09	32	DEC 09,1974	
5,997	370.514	09	33	DEC 09,1974	
6,014	370,607	09	34	DEC 09,1974	
6,030	370,560	09	35	DEC 09,1974	
6,047	370,607	09	36	DEC 09,1974	
6,063	370,607	09	37	DEC 09,1974	
6,080	370,560	09	38	DEC 09,1974	
6,096	370,653	09	39	DEC 09,1974	
6,113	370,560	09	40	DEC 09,1974	
6,129	370,607	09	41	DEC 09,1974	
6,146	370,607	09	42	DEC 09,1974	
6,162	370,653	09	43	DEC 09,1974	
6,179	370,653	09	44	DEC 09,1974	
6,195	370,653	09	45	DEC 09,1974	
6,211	370,653	09	46	DEC 09,1974	
6,228	370,653	09	47	DEC 09,1974	
6,244	370,560	09	48	DEC 09,1974	
6,261	370,607	09	49	DEC 09,1974	
6,277	370,653	09	50	DEC 09,1974	
6,294	370,653	09	51	DEC 09,1974	
6,310	370,653	09	52	DEC 09,1974	
6,327	370,653	09	53	DEC 09,1974	
6,343	370,700	09	54	DEC 09,1974	
6,360	370,700	09	55	DEC 09,1974	
6,376	370,700	09	56	DEC 09,1974	
6.393	370,746	09	57	DEC 09,1974	
6.409	370,746	09	58	DEC 09,1974	
6,426	370,792	09	59	DEC 09,1974	
6,442	370,746	10	00	DEC 09,1974	
6,459	370,792	10	01	DEC 09,1974	
6,475	370,792	10	02	DEC 09,1974	
6,492	370,792	10	02	DEC 09,1974	
6.508	370,792	10	03	DEC 09,1974	
6,524	370,792	10	04	DEC 09,1974	
6,541	370,792	10	05	DEC 09,1974	
6.557	370,792	10	06	DEC 09,1974	
6,574	370,792	10	07	DEC 09,1974	

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PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	TIME MIN	DATE	COMMENTS
6.590	370.792	10	08	DEC 09,1974	
6.607	370.792	10	09	DEC 09,1974	
6.623	370.746	10	10	DEC 09,1974	
6.640	370.792	10	11	DEC 09,1974	
6.656	370.746	10	12	DEC 09,1974	
6.673	370.792	10	13	DEC 09,1974	
6.689	370.746	10	14	DEC 09,1974	
6.706	370.792	10	15	DEC 09,1974	
6.722	370.839	10	16	DEC 09,1974	
6.739	370.792	10	17	DEC 09,1974	
6.755	370.839	10	18	DEC 09,1974	
6.772	370.839	10	19	DEC 09,1974	
6.788	370.839	10	20	DEC 09,1974	
6.805	370.839	10	21	DEC 09,1974	
6.821	370.885	10	22	DEC 09,1974	
6.838	370.839	10	23	DEC 09,1974	
6.854	370.885	10	24	DEC 09,1974	
6.870	370.885	10	25	DEC 09,1974	
6.887	370.885	10	26	DEC 09,1974	
6.903	370.885	10	27	DEC 09,1974	
6.920	370.839	10	28	DEC 09,1974	
6.936	370.839	10	29	DEC 09,1974	
6.953	370.885	10	30	DEC 09,1974	
6.969	370.885	10	31	DEC 09,1974	
6.986	370.932	10	32	DEC 09,1974	
7.002	370.932	10	33	DEC 09,1974	
7.019	370.932	10	34	DEC 09,1974	
7.035	370.932	10	35	DEC 09,1974	
7.052	370.978	10	36	DEC 09,1974	
7.068	371.025	10	37	DEC 09,1974	
7.085	370.932	10	38	DEC 09,1974	
7.101	370.978	10	39	DEC 09,1974	
7.118	370.932	10	40	DEC 09,1974	
7.134	370.978	10	41	DEC 09,1974	
7.151	370.978	10	42	DEC 09,1974	
7.167	370.932	10	43	DEC 09,1974	
7.184	370.978	10	44	DEC 09,1974	
7.200	370.978	10	45	DEC 09,1974	
7.216	370.978	10	46	DEC 09,1974	
7.233	370.932	10	47	DEC 09,1974	

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PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
7.249	370,978	10	48	DEC 09,1974	
7.266	370,978	10	49	DEC 09,1974	
7.282	370,932	10	50	DEC 09,1974	
7.299	370,978	10	51	DEC 09,1974	
7.315	370,978	10	52	DEC 09,1974	
7.332	370,978	10	53	DEC 09,1974	
7.348	371,025	10	54	DEC 09,1974	
7.365	370,978	10	55	DEC 09,1974	
7.381	370,978	10	56	DEC 09,1974	
7.398	370,978	10	57	DEC 09,1974	
7.414	370,978	10	58	DEC 09,1974	
7.431	371,025	10	59	DEC 09,1974	
7.447	371,071	11	00	DEC 09,1974	
7.464	371,025	11	01	DEC 09,1974	
7.480	371,071	11	02	DEC 09,1974	
7.497	371,071	11	03	DEC 09,1974	
7.513	371,118	11	04	DEC 09,1974	
7.530	371,118	11	05	DEC 09,1974	
7.546	371,118	11	06	DEC 09,1974	
7.562	371,118	11	07	DEC 09,1974	
7.579	371,118	11	08	DEC 09,1974	
7.595	371,118	11	09	DEC 09,1974	
7.612	371,071	11	10	DEC 09,1974	
7.628	371,118	11	11	DEC 09,1974	
7.645	371,118	11	12	DEC 09,1974	
7.661	371,164	11	13	DEC 09,1974	2 G/M INSIDE
7.678	371,164	11	14	DEC 09,1974	DRILL PIPE
7.694	371,164	11	15	DEC 09,1974	
7.711	371,164	11	16	DEC 09,1974	
7.727	371,118	11	17	DEC 09,1974	
7.744	371,211	11	18	DEC 09,1974	
7.760	371,164	11	19	DEC 09,1974	
7.777	371,164	11	20	DEC 09,1974	
7.793	371,211	11	21	DEC 09,1974	
7.810	371,164	11	22	DEC 09,1974	
7.826	371,164	11	23	DEC 09,1974	
7.843	371,164	11	24	DEC 09,1974	
7.859	371,211	11	25	DEC 09,1974	
7.876	371,164	11	26	DEC 09,1974	
7.892	371,211	11	27	DEC 09,1974	

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PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	TIME MIN	DATE	COMMENTS
7,908	371,211	11	28	DEC 09,1974	5 G/M INSIDE
7,925	371,211	11	28	DEC 09,1974	DRILL PIPE
7,941	371,257	11	29	DEC 09,1974	
7,958	371,211	11	30	DEC 09,1974	
7,974	371,164	11	31	DEC 09,1974	
7,991	371,211	11	32	DEC 09,1974	10 G/M INSIDE
8,007	371,164	11	33	DEC 09,1974	DRILL PIPE
8,024	371,211	11	34	DEC 09,1974	
8,040	371,257	11	35	DEC 09,1974	
8,057	371,211	11	36	DEC 09,1974	
8,073	371,211	11	37	DEC 09,1974	
8,090	371,257	11	38	DEC 09,1974	
8,106	371,211	11	39	DEC 09,1974	
8,123	371,211	11	40	DEC 09,1974	
8,139	371,211	11	41	DEC 09,1974	
8,156	371,257	11	42	DEC 09,1974	
8,172	371,257	11	43	DEC 09,1974	
8,189	371,257	11	44	DEC 09,1974	
8,205	371,211	11	45	DEC 09,1974	
8,222	371,211	11	46	DEC 09,1974	
8,238	371,257	11	47	DEC 09,1974	
8,254	371,304	11	48	DEC 09,1974	
8,271	371,257	11	49	DEC 09,1974	
8,287	371,304	11	50	DEC 09,1974	
8,304	371,304	11	51	DEC 09,1974	
8,320	371,304	11	52	DEC 09,1974	CONTINUED JETT
8,337	371,304	11	53	DEC 09,1974	ING AT UNKNOWN
8,353	371,257	11	54	DEC 09,1974	RATE
8,370	371,257	11	55	DEC 09,1974	
8,386	371,304	11	56	DEC 09,1974	
8,403	371,257	11	57	DEC 09,1974	
8,419	371,304	11	58	DEC 09,1974	
8,436	371,257	11	59	DEC 09,1974	
8,452	371,304	12	00	DEC 09,1974	
8,469	371,304	12	01	DEC 09,1974	
8,485	371,257	12	02	DEC 09,1974	
8,502	371,304	12	03	DEC 09,1974	
8,518	371,304	12	04	DEC 09,1974	
8,535	371,304	12	05	DEC 09,1974	
8,551	371,304	12	06	DEC 09,1974	

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SPERRY-SUN
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DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
8,568	371,257	12	07	DEC 09,1974	
8,584	371,257	12	08	DEC 09,1974	
8,600	371,304	12	09	DEC 09,1974	
8,617	371,257	12	10	DEC 09,1974	
8,633	371,257	12	11	DEC 09,1974	
8,650	371,257	12	12	DEC 09,1974	
8,666	371,257	12	13	DEC 09,1974	
8,683	371,211	12	14	DEC 09,1974	
8,699	371,211	12	15	DEC 09,1974	
8,716	371,304	12	16	DEC 09,1974	
8,732	371,118	12	17	DEC 09,1974	
8,749	371,118	12	18	DEC 09,1974	
8,765	371,164	12	19	DEC 09,1974	
8,782	371,164	12	20	DEC 09,1974	
8,798	371,211	12	21	DEC 09,1974	
8,815	371,211	12	22	DEC 09,1974	
8,831	371,118	12	23	DEC 09,1974	
8,848	371,118	12	24	DEC 09,1974	
8,864	371,211	12	25	DEC 09,1974	
8,881	371,211	12	26	DEC 09,1974	
8,897	371,304	12	27	DEC 09,1974	
8,914	371,304	12	28	DEC 09,1974	
8,930	371,257	12	29	DEC 09,1974	
8,946	371,304	12	30	DEC 09,1974	
8,963	371,257	12	31	DEC 09,1974	
8,979	371,257	12	32	DEC 09,1974	
8,996	371,257	12	33	DEC 09,1974	
9,012	371,211	12	34	DEC 09,1974	
9,029	371,257	12	35	DEC 09,1974	
9,045	371,304	12	36	DEC 09,1974	
9,062	371,304	12	37	DEC 09,1974	
9,078	371,304	12	38	DEC 09,1974	
9,095	371,350	12	39	DEC 09,1974	
9,111	371,350	12	40	DEC 09,1974	
9,128	371,304	12	41	DEC 09,1974	
9,144	371,304	12	42	DEC 09,1974	
9,161	371,257	12	43	DEC 09,1974	
9,177	371,350	12	44	DEC 09,1974	
9,194	371,071	12	45	DEC 09,1974	
9,210	371,350	12	46	DEC 09,1974	

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DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
9,227	371,304	12	47	DEC 09,1974	
9,243	371,350	12	48	DEC 09,1974	
9,260	371,304	12	49	DEC 09,1974	
9,276	371,397	12	50	DEC 09,1974	
9,292	371,397	12	51	DEC 09,1974	
9,309	371,397	12	52	DEC 09,1974	
9,325	371,397	12	53	DEC 09,1974	
9,342	371,397	12	54	DEC 09,1974	
9,358	371,397	12	55	DEC 09,1974	
9,375	371,443	12	55	DEC 09,1974	
9,391	371,397	12	56	DEC 09,1974	
9,408	371,443	12	57	DEC 09,1974	
9,424	371,443	12	58	DEC 09,1974	
9,441	371,397	12	59	DEC 09,1974	
9,457	371,397	13	00	DEC 09,1974	
9,474	371,257	13	01	DEC 09,1974	
9,490	371,490	13	02	DEC 09,1974	
9,507	371,490	13	03	DEC 09,1974	
9,523	371,490	13	04	DEC 09,1974	
9,540	371,536	13	05	DEC 09,1974	
9,556	371,536	13	06	DEC 09,1974	
9,573	371,490	13	07	DEC 09,1974	
9,589	371,490	13	08	DEC 09,1974	
9,606	371,536	13	09	DEC 09,1974	
9,622	371,536	13	10	DEC 09,1974	
9,638	371,490	13	11	DEC 09,1974	
9,655	371,536	13	12	DEC 09,1974	
9,671	371,490	13	13	DEC 09,1974	
9,688	371,536	13	14	DEC 09,1974	
9,704	371,490	13	15	DEC 09,1974	
9,721	371,536	13	16	DEC 09,1974	
9,737	371,536	13	17	DEC 09,1974	
9,754	371,536	13	18	DEC 09,1974	
9,770	371,583	13	19	DEC 09,1974	END INJECTION
9,787	371,583	13	20	DEC 09,1974	
9,803	371,536	13	21	DEC 09,1974	
9,820	371,536	13	22	DEC 09,1974	
9,836	371,583	13	23	DEC 09,1974	
9,853	371,629	13	24	DEC 09,1974	
9,869	371,583	13	25	DEC 09,1974	

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JOB NUMBER                                                         DATE OF JOB
SPG-11215-1                                                            12-9-74

GAUGE/RUN NUMBER                                                   DATE OF RUN
194  RUN NO.1  DST NO. 1                                               12-9-74

                              SPERRY-SUN
                PRECISION SUBSURFACE PRESSURE GAUGE REPORT

     DELTA    PRESSURE                  TIME     DATE              COMMENTS
     TIME      (PSI)                   HR MIN

     9,886    371,629                  13  26 DEC 09,1974
     9,902    371,629                  13  27 DEC 09,1974
     9,919    371,629                  13  28 DEC 09,1974
     9,935    371,676                  13  29 DEC 09,1974
     9,952    371,676                  13  30 DEC 09,1974
     9,968    371,676                  13  31 DEC 09,1974
     9,984    371,676                  13  32 DEC 09,1974
    10,001    371,676                  13  33 DEC 09,1974
    10,017    371,583                  13  34 DEC 09,1974
    10,034    371,629                  13  35 DEC 09,1974
    10,050    371,629                  13  36 DEC 09,1974
    10,067    371,583                  13  37 DEC 09,1974
    10,083    371,629                  13  38 DEC 09,1974   END OF TEST
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                    613 POINTS REPORTED THIS RUN

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JOHNSTON
Schlumberger

technical report

RECEIVED
DEC 31 1974
A. L. ROGERS

II B-1962

F.R. #04368 C

COMPANY ATLANTIC-RICHFIELD COMPANY
WELL FEDERAL S-G #20
TEST NO. 2
COUNTY RIO BLANCO
STATE COLORADO

JOHNSTON
...found a better way

SURFACE INFORMATION

Description (Rate of Flow)	Time	Pressure (P.S.I.G.)	Surface Choke
Opened Tool			
SEE SUPPLEMENTARY SHEET			

Cushion Type	Amount	Pressure	Bottom Choke
	-		Size 3/4"

MUD DATA

Mud Type SOAP AND WATER Wt. -
Viscosity - Water Loss - C.C.
Resist: of Mud - @ - °F; of Filtrate - @ - °F
Chloride Content - PPM

EQUIPMENT & HOLE DATA

Type Test M.F.E. OPEN HOLE
Formation Tested GROOVE "A"
Elevation 1599 Ft.
Net Productive Interval 41 Ft.
Estimated Porosity - %
All Depths Measured From GROUND LEVEL
Total Depth 986 Ft.
Main Hole/Casing Size 6 1/4"
Rat Hole/Liner Size -
Drill Collar Length 209' I.D. 1.75"
Drill Pipe Length 702' I.D. 2.10"
Packer Depth(s) 941' & 945' Ft.

MULTI-FLOW EVALUATOR FLUID SAMPLE DATA

Sampler Pressure P.S.I.G. at Surface
Recovery: Cu. Ft. Gas
cc. Oil
cc. Water
cc. Mud
Tot. Liquid cc.
Gravity °API @ °F.
Gas/Oil Ratio cu. ft./bbl.

	RESISTIVITY	CHLORIDE CONTENT
Recovery Water	@ °F.	ppm
Recovery Mud	@ °F.	
Recovery Mud Filtrate	@ °F.	ppm
Mud Pit Sample	@ °F.	
Mud Pit Sample Filtrate	@ °F.	ppm

RECOVERY DESCRIPTION	FEET	BARRELS	% OIL	% WATER	% OTHERS	API GRAVITY	RESISTIVITY	CHL. PPM
-						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	

Remarks:

Address 1500 SECURITY LIFE BUILDING; DENVER, COLORADO 80202
Company ATLANTIC-RICHFIELD COMPANY Field SORGHUM GULCH
Well FEDERAL S-G #20 Location SEC. 31 T-2S-R96W
Test Interval 945' TO 986' Test # 2 Date 12-11-74
County RIO BLANCO State COLORADO

II B-1963

Technician MOUDRY (VERNAL) Test Approved By MR. FRED BURNS
Field Report No. 04368 C
No. Reports Requested 14 (13y)

SUPPLEMENTARY SHEET FOR FIELD REPORT #04368 C

SURFACE INFORMATION

DESCRIPTION (RATE OF FLOW)		TIME	PRESSURE (P.S.I.G.)	SURFACE CHOKE
OPENED TOOL		0919	-	-
LIGHT BLOW				
CLOSED FOR INITIAL SHUT-IN		0922	-	-
FINISHED SHUT-IN		0952	-	-
RE-OPENED TOOL		0956	-	-
JETTED AIR INTO DRILL PIPE	FROM	1258	-	-
	UNTIL	1305	-	-
	AND FROM	1314	-	-
	UNTIL	1321	-	-
	AND FROM	1358	-	-
	UNTIL	1408	-	-
INJECTED INTO FORMATION				
20 GAL/MIN. FOR 22 MIN.	FROM	1951	-	-
	UNTIL	2013	-	-
40 GAL/MIN. FOR 20 MIN.	FROM	2013	-	-
	UNTIL	2033	-	-
60 GAL/MIN. FOR 20 MIN.	FROM	2033	-	-
	UNTIL	2053	-	-
INJECTED INTO FORMATION				
2 GAL/MIN. FOR 20 MIN. AT 434 P.S.I.	FROM	2134	-	-
	UNTIL	2154	-	-
5 GAL/MIN. FOR 20 MIN. AT 448 P.S.I.	FROM	2154	-	-
	UNTIL	2214	-	-
10 GAL/MIN. FOR 20 MIN. AT 455 P.S.I.	FROM	2214	-	-
	UNTIL	2234	-	-
20 GAL/MIN. AT 574 P.S.I. (NO TIME LOGGED)				
PULLED PACKER LOOSE		2307	-	-

PRESSURE DATA

Instrument No.	4097 N		
Capacity (P.S.I.G.)	2800		
Instrument Depth	947'		
Instrument Opening	INSIDE		
Pressure Gradient P.S.I./Ft.			
Well Temperature °F.	71		
Initial Hydrostatic Mud A			
Initial Shut-in B			
Initial Flow C			
Final Flow D			
Final Shut-in E			
Final Hydrostatic Mud F			

Field Report No. 04368 C

TIME DATA

Time Given	Time Computed
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.

Remarks:

Shut in pressure did not reach static reservoir pressure.

Clock Travel 0.003483 inches per min.

PRESSURE INCREMENTS

Point	Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$	Point	Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$	Point	Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$
		395.0			46	206.3			78	397.8	
2		400.6			47	216.2			79	399.2	
3	0	24.8			48	228.9			80	399.2	
4	1	40.3			49	238.7			81	399.2	
	2	286.6			50	252.8			82	400.6	
	3	402.0			51	261.2			83	400.6	
	4	403.4			52	272.5			84	400.6	
	5	404.8			53	279.5			85	402.0	
	6	404.8			54	290.8			86	402.0	
	7	406.2			55	299.2			87	403.4	
	8	406.2			56	309.1			88	403.4	
	9	406.2			57	316.1			89	403.4	
	10	406.2			58	323.2			90	403.4	
	11	406.2			59	330.2			91	404.8	
	12	406.2			60	335.8			92	404.8	
	13	406.2			61	342.9			93	404.8	
	14	406.2			62	349.9			94	404.8	
	15	406.2			63	354.1			95	404.8	
	20	406.2			64	359.8			100	404.8	
	25	406.2			65	364.0			105	406.2	
	30	406.2			66	368.2			110	406.2	
5	34	406.2			67	372.4			115	407.6	
6	36	411.8			68	376.7			120	407.6	
7	37	47.3			69	379.5			125	407.6	
	38	96.6			70	382.3			130	407.6	
	39	105.0			71	385.1			135	407.6	
	40	119.1			72	387.9			140	407.6	
	41	131.8			73	390.7	II B-1965		145	409.0	
	42	151.5			74	392.1			150	409.0	
	43	164.1			75	393.5			155	409.0	
	44	176.8			76	395.0			160	409.0	
	45	189.5			77	396.4			165	409.0	

PRESSURE DATA

Instrument No.		4097 N		
Capacity (P.S.I.G.)				
Instrument Depth				
Instrument Opening				
Pressure Gradient P.S.I./Ft.				
Well Temperature °F.				
Initial Hydrostatic Mud	A			
Initial Shut-in	B			
Initial Flow	C			
Final Flow	D			
Final Shut-in	E			
Final Hydrostatic Mud	F			

Field Report No. 04368 C

TIME DATA

Time Given	Time Computed
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.

Remarks:

**Shut in pressure did not reach static reservoir pressure.*

Clock Travel 0.003483 inches per min.

PRESSURE INCREMENTS

Point Minutes	Pressure	$\frac{T + \Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T + \Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T + \Delta t}{\Delta t}$
170	409.0		16 255	288.0		300	379.5	
175	410.4		256	318.9		301	383.7	
180	410.4		258	335.8		302	386.5	
185	410.4		260	349.9		303	389.3	
190	410.4		262	361.2		304	390.7	
195	410.4		264	372.4		305	393.5	
200	410.4		266	379.5		306	395.0	
205	410.4		268	386.5		307	396.4	
210	410.4		270	392.1		308	397.8	
215	410.4		272	396.4		309	399.2	
8 219	410.4		274	399.2		310	400.6	
220	354.1		276	400.6		311	400.6	
9 221	328.8		278	402.0		312	402.0	
222	328.8		17 279	402.0		313	402.0	
224	328.8		18 280	434.4		314	402.0	
10 226	280.9		19 281	327.4		315	403.4	
228	320.4		282	328.8		316	403.4	
230	337.2		284	328.8		317	403.4	
232	351.3		286	328.8		318	403.4	
234	362.6		20 287	279.5		319	404.8	
11 236	404.8		288	300.7		320	404.8	
238	330.2		289	309.1		325	404.8	
240	330.2		290	320.4		330	406.2	
242	330.2		291	327.4		335	406.2	
244	330.2		292	335.8		340	406.2	
12 246	330.2		293	342.9		345	406.2	
13 247	278.1		294	349.9		350	407.6	
248	302.1		295	355.5	II B-1966	355	407.6	
14 250	352.7		296	361.2		360	407.6	
252	326.0		297	366.8		365	407.6	
15 253	326.0		298	371.0		370	409.0	
254	293.6		299	376.7		375	409.0	

PRESSURE DATA

Instrument No.	4097 N		
Capacity (P.S.I.G.)			
Instrument Depth			
Instrument Opening			
Pressure Gradient P.S.I./Ft.			
Well Temperature °F.			
Initial Hydrostatic Mud A			
Initial Shut-in B			
Initial Flow C			
Final Flow D			
Final Shut-in E			
Final Hydrostatic Mud F			

Field Report No. 04368 C

TIME DATA

Time Given	Time Computed
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.

Remarks:

*Shut in pressure did not reach static reservoir pressure.

Clock Travel 0.003483 inches per min.

PRESSURE INCREMENTS

Point	Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$
	380	409.0		497	272.5		529	396.4	
	385	410.4		498	280.9		530	396.4	
	390	410.4		499	293.6		531	396.4	
	395	410.4		500	299.2		532	396.4	
	400	410.4		501	309.1		533	397.8	
	405	410.4		502	318.9		534	397.8	
	410	410.4		503	324.6		535	399.2	
21	414	410.4		504	333.0		540	399.2	
	415	411.8		505	338.7		545	400.6	
22	419	433.0		506	345.7		550	402.0	
	420	206.3		507	349.9		555	403.4	
23	422	197.9		508	355.5		560	404.8	
	425	212.0		509	359.8		565	404.8	
	430	210.6		510	364.0		570	406.2	
	435	210.6		511	368.2		575	407.6	
	440	210.6		512	372.4		580	407.6	
	445	210.6		513	375.2		585	407.6	
	450	210.6		514	378.1		590	407.6	
	455	210.6		515	380.9		595	407.6	
	460	210.6		516	383.7		600	407.6	
	465	210.6		517	385.1		610	409.0	
	470	210.6		518	386.5		620	409.0	
	475	210.6		519	389.3		630	409.0	
	480	210.6		520	389.3		640	410.4	
	485	210.6		521	390.7		650	410.4	
	490	210.6		522	392.1		660	410.4	
[illegible]	491	210.6		523	393.5		670	411.8	
25	492	157.1		524	393.5	II B-1967	680	411.8	
	493	223.2		525	393.5		690	411.8	
	494	234.5		526	395.0		700	411.8	
	495	248.6		527	396.4		710	411.8	
	496	258.4		528	396.4		720	411.8	

PRESSURE DATA

Instrument No.		4097 N		
Capacity (P.S.I.G.)				
Instrument Depth				
Instrument Opening				
Pressure Gradient P.S.I./Ft.				
Well Temperature °F.				
Initial Hydrostatic Mud	A			
Initial Shut-in	B			
Initial Flow	C			
Final Flow	D			
Final Shut-in	E			
Final Hydrostatic Mud	F			

Field Report No. 04368 C

TIME DATA

Time Given	Time Computed
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.

Remarks:

**Shut in pressure did not reach static reservoir pressure.*

Clock Travel 0.003483 inches per min.

PRESSURE INCREMENTS

Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$
730	411.8		804	414.7				
740	413.3		806	414.7				
750	413.3		808	414.7				
26 751	413.3		810	414.7				
752	455.5		812	414.7				
754	459.7		814	414.7				
756	465.3		816	414.7				
758	468.1		818	414.7				
760	473.8		820	414.7				
762	476.6		822	414.7				
764	479.4		824	414.7				
766	480.8		826	414.7				
768	482.2		31 828	414.7				
770	483.6		32	403.4				
772	483.6							
774	483.6							
776	483.6							
26 777	483.6							
778	554.0							
28 780	606.1							
782	603.3							
784	606.1							
786	607.5							
788	610.3							
790	610.3							
792	614.5							
794	614.5							
29 795	614.5							
30 796	414.7							
798	414.7							
800	414.7							
802	414.7							

II B-1968

PRESSURE DATA

Instrument No.	32342 N			
Capacity (P.S.I.G.)	2800			
Instrument Depth	960'			
Instrument Opening	OUTSIDE			
Pressure Gradient P.S.I./Ft.				
Well Temperature °F.	71			
Initial Hydrostatic Mud A				
Initial Shut-in B				
Initial Flow C				
Final Flow D				
Final Shut-in E				
Final Hydrostatic Mud F				

Field Report No. 04368 C

TIME DATA

Time Given	Time Computed
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.

Remarks:

**Shut in pressure did not reach static reservoir pressure.*

Clock Travel 0.003689 inches per min.

PRESSURE INCREMENTS

Point	(tes	Pressure	T + Δt / Δt	Point Minutes	Pressure	T + Δt / Δt	Point Minutes	Pressure	T + Δt / Δt
1		404.8		46	204.5		78	407.6	
2		418.9		47	220.0		79	407.6	
3	0	38.1		48	234.1		80	409.0	
4	1	49.4		49	245.4		81	409.0	
	2	383.6		50	256.7		82	410.4	
	3	411.8		51	268.0		83	411.8	
	4	414.7		52	276.4		84	411.8	
	5	416.1		53	287.7		85	411.8	
	6	416.1		54	299.0		86	413.3	
	7	416.1		55	306.1		87	413.3	
	8	417.5		56	315.9		88	413.3	
	9	417.5		57	324.4		89	413.3	
	10	417.5		58	331.5		90	413.3	
	11	417.5		59	338.5		91	413.3	
	12	417.5		60	345.6		92	414.7	
	13	417.5		61	352.6		93	414.7	
	14	417.5		62	358.3		94	414.7	
	15	417.5		63	363.9		95	414.7	
	20	417.5		64	369.5		100	416.1	
	25	417.5		65	372.4		105	416.1	
	30	417.5		66	378.0		110	416.1	
5	34	417.5		67	383.6		115	417.5	
6	36	418.9		68	385.0		120	417.5	
7	37	62.1		69	387.9		125	417.5	
	38	83.2		70	392.1		130	417.5	
	39	97.3		71	393.5		135	417.5	
	40	112.8		72	397.7		140	417.5	
	41	131.2		73	400.6	II B-1969	145	418.9	
	42	146.7		74	402.0		150	418.9	
	43	163.6		75	403.4		155	418.9	
	44	179.1		76	404.8		160	418.9	
	45	193.2		77	406.2		165	420.3	

PRESSURE DATA

Instrument No.	32342 N		
Capacity (P.S.I.G.)			
Instrument Depth			
Instrument Opening			
Pressure Gradient P.S.I./Ft.			
Well Temperature °F.			
Initial Hydrostatic Mud A			
Initial Shut-in B			
Initial Flow C			
Final Flow D			
Final Shut-in E			
Final Hydrostatic Mud F			

Field Report No. 04368 C

TIME DATA

Time Given	Time Computed
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.

Remarks:

Shut in pressure did not reach static reservoir pressure.

Clock Travel 0.003689 inches per min.

PRESSURE INCREMENTS

Point Minutes	Pressure	$\frac{T + \Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T + \Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T + \Delta t}{\Delta t}$
170	420.3		16 255	300.4		300	386.5	
175	420.3		256	315.9		301	390.7	
180	420.3		258	334.3		302	393.5	
185	420.3		260	352.6		303	396.3	
190	420.3		262	366.7		304	397.7	
195	420.3		264	376.6		305	402.0	
200	420.3		266	386.5		306	403.4	
205	420.3		268	394.9		307	406.2	
210	420.3		270	400.6		308	407.6	
215	420.3		272	404.8		309	407.6	
8 219	420.3		274	407.6		310	409.0	
220	407.6		276	410.4		311	410.4	
9 221	338.5		278	411.8		312	410.4	
222	338.5		17 279	413.3		313	410.4	
224	338.5		18 280	444.3		314	411.8	
10 226	290.6		19 281	339.9		315	411.8	
228	323.0		282	339.9		316	411.8	
230	338.5		284	339.9		317	413.3	
232	354.0		286	339.9		318	413.3	
234	369.5		20 287	289.1		319	413.3	
11 236	414.7		288	297.6		320	414.7	
238	339.9		289	310.3		325	414.7	
240	339.9		290	318.8		330	416.1	
242	339.9		291	328.6		335	416.1	
244	339.9		292	338.5		340	416.1	
1 246	339.9		293	345.6		345	416.1	
13 247	289.1		294	352.6		350	417.5	
248	297.6		295	359.7		355	417.5	
14 250	362.5		296	365.3	II B-1970	360	417.5	
252	337.1		297	370.9		365	417.5	
15 253	337.1		298	376.6		370	418.9	
254	310.3		299	382.2		375	418.9	

PRESSURE DATA

Instrument No.	32342 N		
Capacity (P.S.I.G.)			
Instrument Depth			
Instrument Opening			
Pressure Gradient P.S.I./Ft.			
Well Temperature °F.			
Initial Hydrostatic Mud A			
Initial Shut-in B			
Initial Flow C			
Final Flow D			
Final Shut-in E			
Final Hydrostatic Mud F			

Field Report No. 04368 C

TIME DATA

Time Given	Time Computed
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.

Remarks:

*Shut in pressure did not reach static reservoir pressure.

Clock Travel 0.003639 inches per min.

PRESSURE INCREMENTS

Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$
380	418.9		497	262.3		529	406.2	
385	418.9		498	275.0		530	406.2	
390	418.9		499	284.0		531	406.2	
395	418.9		500	294.8		532	406.2	
400	418.9		501	308.9		533	407.6	
405	418.9		502	315.9		534	407.6	
410	418.9		503	324.4		535	407.6	
21 414	418.9		504	334.3		540	409.0	
415	420.3		505	339.9		545	410.4	
22 419	442.9		506	347.0		550	411.8	
420	227.1		507	354.0		555	413.3	
23 422	207.3		508	359.7		560	414.7	
425	227.1		509	363.9		565	414.7	
430	224.3		510	369.5		570	416.1	
435	222.9		511	375.2		575	416.1	
440	222.9		512	378.0		580	416.1	
445	222.9		513	382.2		585	416.1	
450	222.9		514	385.0		590	416.1	
455	222.9		515	387.9		595	417.5	
460	222.9		516	390.7		600	417.5	
465	222.9		517	393.5		610	417.5	
470	221.4		518	394.9		620	417.5	
475	221.4		519	396.3		630	417.5	
480	221.4		520	397.7		640	418.9	
485	221.4		521	399.2		650	418.9	
490	221.4		522	400.6		660	418.9	
24 491	221.4		523	402.0		670	420.3	
25 492	169.3		524	402.0	II B-1971	680	420.3	
493	200.3		525	403.4		690	420.3	
494	220.0		526	403.4		700	420.3	
495	238.4		527	404.8		710	420.3	
496	249.7		528	404.8		720	420.3	

PRESSURE DATA

Instrument No.	32342 N		
Capacity (P.S.I.G.)			
Instrument Depth			
Instrument Opening			
Pressure Gradient P.S.I./Ft.			
Well Temperature °F.			
Initial Hydrostatic Mud A			
Initial Shut-in B			
Initial Flow C			
Final Flow D			
Final Shut-in E			
Final Hydrostatic Mud F			

Field Report No. 04368 C

TIME DATA

Time Given	Time Computed
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.

Remarks:

*Shut in pressure did not reach static reservoir pressure.

Clock Travel 0.003483 inches per min.

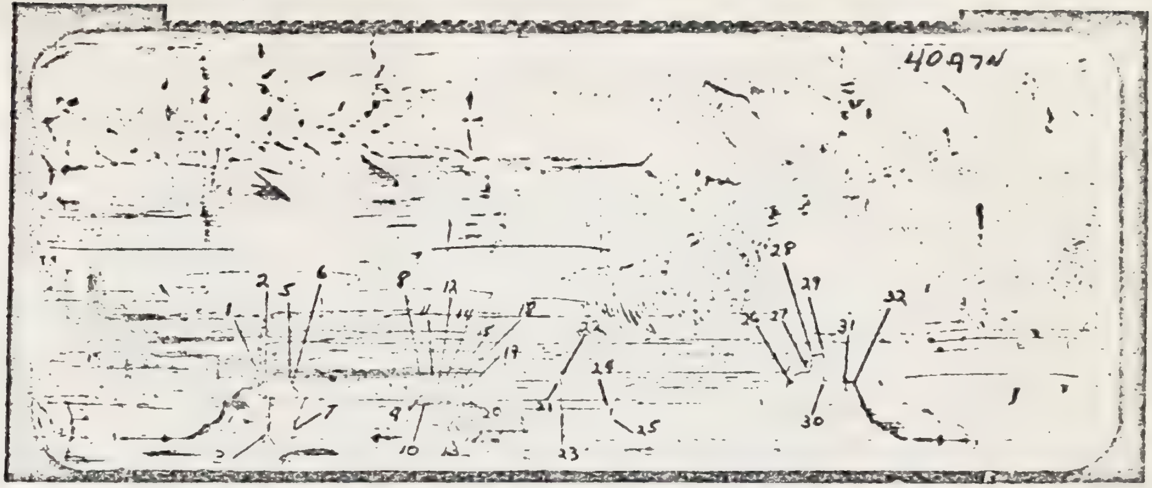
PRESSURE INCREMENTS

Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$
730	420.3		804	421.7				
740	420.3		806	421.7				
750	420.3		808	421.7				
26 751	420.3		810	421.7				
752	444.3		812	421.7				
754	461.2		814	421.7				
756	466.9		816	421.7				
758	471.1		818	421.7				
760	475.3		820	421.7				
762	479.5		822	421.7				
764	483.8		824	421.7				
766	486.6		826	421.7				
768	488.0		31 828	421.7				
770	489.4		32	409.0				
772	489.4							
774	490.8							
776	490.8							
27 777	490.8							
778	533.1							
28 780	612.1							
782	606.5							
784	609.3							
786	612.1							
788	613.5							
790	616.4							
792	617.8							
794	619.2							
29 795	620.6							
30 796	421.7							
798	421.7							
800	421.7							
802	421.7							

II B-1972

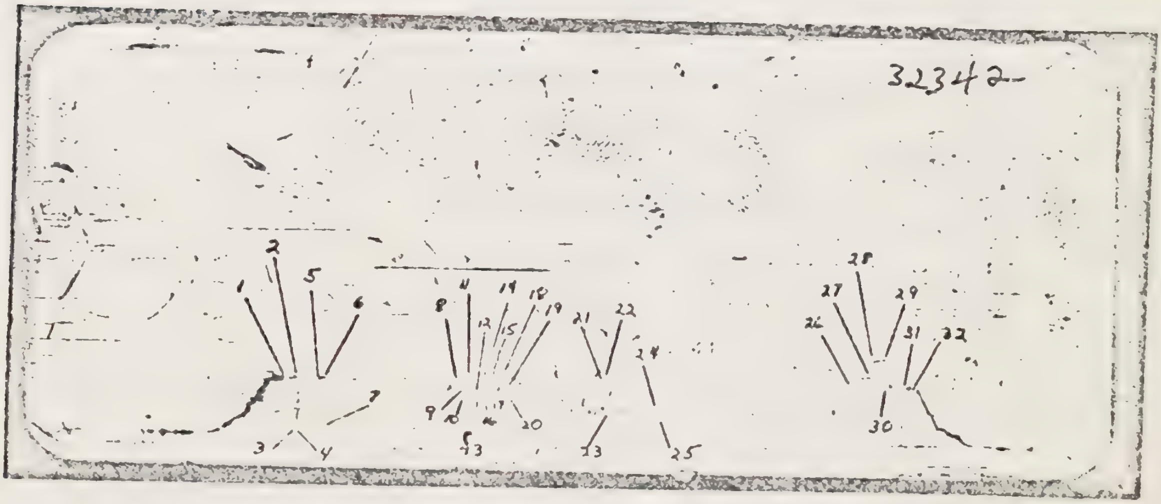
JOHNSTON

FIELD REPORT NO.	RECORDER NO.
04368 C	4097 N
CAPACITY	**REPORTS REQUESTED**
2800#	14+



JOHNSTON

FIELD REPORT NO.	RECORDER NO.
04368 C	32342 N
CAPACITY	**REPORTS REQUESTED**
2800#	14+



PRESSURE GAUGE DRILL STEM TEST SHEET SG-20

DST 2
945-984

Job No. SG 11215-2 Date 12/11/74 Run Office CASPER

Customer ARCO ET AL Location SORGHUM GULCH

State COLORADO County/~~Parish~~ RIO BLANCO

Well S G No. 20 Field TRACT C-b

USE MILITARY TIME FOR ALL TIMES

	Time	Date	Time	Date	Time Charged
Arrive: Well/Dock	1. 0400	12/11/74	2.		
Depart: Well/Dock	1. 0300	12/12	2.		23 Hrs.
Gauge Start in Hole	1. 0638	12/11	2.		
Gauge Out of Hole	1. 0134	12/12	2.		19 Hrs.

No. Trips 1 Miles 90 Total Mileage 90

Top Gauge # 88 Element # Range 10,000 LB Time Mode 1

Btm. Gauge # 168 Element # Range 2500 LB Time Mode 1

Type Tool Test Depth 945'-984' Zero Point GROUND LEVEL

Packer Depth 943'/945' Tail Pipe Depth 986' Top Gauge Depth 917'

Bottom Hole Temp. 71° Atmos. Temp. [illegible] Bottom Gauge Depth

TIME INFORMATION	Time	Date	PRESSURE INFORMATION	
On Bottom	0815	12/11/74	Initial Hydrostatic Mud	1 [illegible]
Packer Set	0911	"	Initial Draw Down	56
Initial Open	0919	"	Initial Build-Up	378
Initial Shut-In	0931	"	Final Flow	342
Start Flow	0956	"	Final Build-Up	
Final Shut-In	2307	"	Final Hydrostatic Mud	
Packer Unseated	2310	"	Mud Weight	

TIME OF SURFACE NULLS

Top Gauge 0700 [illegible] 0710 Bottom Gauge [illegible] 0134 0135

Remarks

SP-423 II B-1974 Operator

JOB NUMBER
SPG 11215-2

DATE OF JOB
DECEMBER 11, 1974

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

PREPARED FOR

ATLANTIC RICHFIELD COMPANY

WELL NUMBER	FEDERAL SG 20
FIELD/LEASE	TRACT C-B SORGHUM GULCH
COUNTY/PARISH	RIO BLANCO
STATE	COLORADO
TYPE OF TEST	DRILL STEM
REFERENCE ELEV	GROUND LEVEL

ADDITIONAL INFORMATION

USED GAUGE 168 WITH 2500 LB. ELEMENT.

GAUGE LOCATED INSIDE D.P. BELOW PACKER.

DEPTH OF GAUGE IS 984 FT.

TEST INTERVAL 945 TO 986 FT.

SET PACKER DEPTH IS 945 FT.

INITIAL HYDROSTATIC IS 425.05 PSI

FINAL HYDROSTATIC IS 430.49 PSI

GROUND LEVEL REFERENCE IS 7036 FT.

821 POINTS REPORTED THIS JOB

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JANUARY 15, 1975

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DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0.000	46,148	09	21	DEC 11,1974	START SHUT-IN
.016	423,936	09	22	DEC 11,1974	
.031	415,625	09	23	DEC 11,1974	
.047	421,068	09	24	DEC 11,1974	
.063	422,590	09	25	DEC 11,1974	
.078	423,292	09	26	DEC 11,1974	
.094	423,702	09	27	DEC 11,1974	
.109	424,053	09	28	DEC 11,1974	
.125	424,111	09	29	DEC 11,1974	
.141	424,229	09	29	DEC 11,1974	
.156	424,521	09	30	DEC 11,1974	
.172	424,697	09	31	DEC 11,1974	
.188	424,755	09	32	DEC 11,1974	
.203	424,697	09	33	DEC 11,1974	
.219	424,755	09	34	DEC 11,1974	
.234	424,931	09	35	DEC 11,1974	
.250	424,931	09	36	DEC 11,1974	
.266	425,048	09	37	DEC 11,1974	
.281	425,106	09	38	DEC 11,1974	
.297	425,106	09	39	DEC 11,1974	
.313	425,106	09	40	DEC 11,1974	
.328	425,106	09	41	DEC 11,1974	
.344	425,223	09	42	DEC 11,1974	
.359	425,341	09	43	DEC 11,1974	
.375	425,341	09	44	DEC 11,1974	
.391	425,341	09	44	DEC 11,1974	
.406	425,458	09	45	DEC 11,1974	
.422	425,458	09	46	DEC 11,1974	
.438	425,458	09	47	DEC 11,1974	
.453	425,458	09	48	DEC 11,1974	
.469	425,633	09	49	DEC 11,1974	
.484	425,458	09	50	DEC 11,1974	
.500	425,633	09	51	DEC 11,1974	END OF SHUT-IN

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PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0.000	84.659	09	56	DEC 11,1974	START FLOW
.017	102.919	09	57	DEC 11,1974	
.034	117.726	09	58	DEC 11,1974	
.050	137.332	09	59	DEC 11,1974	
.067	154.715	10	00	DEC 11,1974	
.084	170.692	10	01	DEC 11,1974	
.101	185.675	10	02	DEC 11,1974	
.117	200.365	10	03	DEC 11,1974	
.134	214.119	10	04	DEC 11,1974	
.151	227.346	10	05	DEC 11,1974	
.168	240.456	10	06	DEC 11,1974	
.184	253.156	10	07	DEC 11,1974	
.201	265.037	10	08	DEC 11,1974	
.218	275.864	10	09	DEC 11,1974	
.235	286.633	10	10	DEC 11,1974	
.251	296.524	10	11	DEC 11,1974	
.268	306.064	10	12	DEC 11,1974	
.285	315.838	10	13	DEC 11,1974	
.302	325.026	10	14	DEC 11,1974	
.318	333.396	10	15	DEC 11,1974	
.335	341.238	10	16	DEC 11,1974	
.352	348.320	10	17	DEC 11,1974	
.369	354.875	10	18	DEC 11,1974	
.385	361.371	10	19	DEC 11,1974	
.402	367.224	10	20	DEC 11,1974	
.419	372.959	10	21	DEC 11,1974	
.436	378.227	10	22	DEC 11,1974	
.452	383.084	10	23	DEC 11,1974	
.469	387.357	10	24	DEC 11,1974	
.486	391.278	10	25	DEC 11,1974	
.503	394.848	10	26	DEC 11,1974	
.519	398.243	10	27	DEC 11,1974	
.536	401.111	10	28	DEC 11,1974	
.553	403.861	10	29	DEC 11,1974	
.570	406.436	10	30	DEC 11,1974	
.586	408.485	10	31	DEC 11,1974	
.603	410.241	10	32	DEC 11,1974	
.620	411.704	10	33	DEC 11,1974	
.637	413.050	10	34	DEC 11,1974	
.653	414.162	10	35	DEC 11,1974	

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DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
.670	415.215	10	36	DEC 11,1974	
.687	416.152	10	37	DEC 11,1974	
.704	417.030	10	38	DEC 11,1974	
.720	417.674	10	39	DEC 11,1974	
.737	418.376	10	40	DEC 11,1974	
.754	418.961	10	41	DEC 11,1974	
.771	419.546	10	42	DEC 11,1974	
.787	420.073	10	43	DEC 11,1974	
.804	420.541	10	44	DEC 11,1974	
.821	421.068	10	45	DEC 11,1974	
.838	421.419	10	46	DEC 11,1974	
.854	421.887	10	47	DEC 11,1974	
.871	422.180	10	48	DEC 11,1974	
.888	422.531	10	49	DEC 11,1974	
.905	422.824	10	50	DEC 11,1974	
.921	422.999	10	51	DEC 11,1974	
.938	423.234	10	52	DEC 11,1974	
.955	423.409	10	53	DEC 11,1974	
.972	423.526	10	54	DEC 11,1974	
.988	423.643	10	55	DEC 11,1974	
1.005	423.819	10	56	DEC 11,1974	
1.022	423.877	10	57	DEC 11,1974	
1.039	423.877	10	58	DEC 11,1974	
1.055	424.053	10	59	DEC 11,1974	
1.072	424.053	11	00	DEC 11,1974	
1.089	424.287	11	01	DEC 11,1974	
1.106	424.287	11	02	DEC 11,1974	
1.122	424.346	11	03	DEC 11,1974	
1.139	424.463	11	04	DEC 11,1974	
1.156	424.580	11	05	DEC 11,1974	
1.173	424.521	11	06	DEC 11,1974	
1.189	424.580	11	07	DEC 11,1974	
1.206	424.697	11	08	DEC 11,1974	
1.223	424.814	11	09	DEC 11,1974	
1.240	424.814	11	10	DEC 11,1974	
1.256	424.989	11	11	DEC 11,1974	
1.273	424.931	11	12	DEC 11,1974	
1.290	424.989	11	13	DEC 11,1974	
1.307	425.048	11	14	DEC 11,1974	
1.323	425.106	11	15	DEC 11,1974	

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DELTA TIME	PRESSURE (PSI)	TIME HR MIN	DATE	COMMENTS
1.340	425.106	11 16	DEC 11,1974	
1.357	425.223	11 17	DEC 11,1974	
1.374	425.223	11 18	DEC 11,1974	
1.390	425.223	11 19	DEC 11,1974	
1.407	425.282	11 20	DEC 11,1974	
1.424	425.282	11 21	DEC 11,1974	
1.441	425.341	11 22	DEC 11,1974	
1.457	425.341	11 23	DEC 11,1974	
1.474	425.458	11 24	DEC 11,1974	
1.491	425.516	11 25	DEC 11,1974	
1.508	425.516	11 26	DEC 11,1974	
1.524	425.575	11 27	DEC 11,1974	
1.541	425.575	11 28	DEC 11,1974	
1.558	425.692	11 29	DEC 11,1974	
1.575	425.633	11 30	DEC 11,1974	
1.591	425.692	11 31	DEC 11,1974	
1.608	425.692	11 32	DEC 11,1974	
1.625	425.750	11 33	DEC 11,1974	
1.642	425.809	11 34	DEC 11,1974	
1.658	425.867	11 36	DEC 11,1974	
1.675	425.867	11 37	DEC 11,1974	
1.692	425.867	11 38	DEC 11,1974	
1.709	425.984	11 39	DEC 11,1974	
1.725	425.926	11 40	DEC 11,1974	
1.742	425.926	11 41	DEC 11,1974	
1.759	426.043	11 42	DEC 11,1974	
1.776	426.687	11 43	DEC 11,1974	
1.792	426.628	11 44	DEC 11,1974	
1.809	426.570	11 45	DEC 11,1974	
1.826	426.511	11 46	DEC 11,1974	
1.843	426.511	11 47	DEC 11,1974	
1.859	426.453	11 48	DEC 11,1974	
1.876	426.453	11 49	DEC 11,1974	
1.893	426.453	11 50	DEC 11,1974	
1.910	426.101	11 51	DEC 11,1974	
1.926	426.043	11 52	DEC 11,1974	
1.943	426.628	11 53	DEC 11,1974	
1.960	426.628	11 54	DEC 11,1974	
1.977	426.628	11 55	DEC 11,1974	
1.993	427.155	11 56	DEC 11,1974	

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DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
2.010	427.038	11	57	DEC 11,1974	
2.027	428.091	11	58	DEC 11,1974	
2.044	427.447	11	59	DEC 11,1974	
2.060	427.272	12	00	DEC 11,1974	
2.077	427.740	12	01	DEC 11,1974	
2.094	427.623	12	02	DEC 11,1974	
2.111	427.389	12	03	DEC 11,1974	
2.127	427.916	12	04	DEC 11,1974	
2.144	427.740	12	05	DEC 11,1974	
2.161	427.682	12	06	DEC 11,1974	
2.178	427.565	12	07	DEC 11,1974	
2.194	427.447	12	08	DEC 11,1974	
2.211	428.150	12	09	DEC 11,1974	
2.228	427.799	12	10	DEC 11,1974	
2.245	427.682	12	11	DEC 11,1974	
2.261	429.028	12	12	DEC 11,1974	
2.278	428.033	12	13	DEC 11,1974	
2.295	427.916	12	14	DEC 11,1974	
2.312	428.208	12	15	DEC 11,1974	
2.328	428.091	12	16	DEC 11,1974	
2.345	429.203	12	17	DEC 11,1974	
2.362	428.267	12	18	DEC 11,1974	
2.379	429.554	12	19	DEC 11,1974	
2.395	428.559	12	20	DEC 11,1974	
2.412	429.554	12	21	DEC 11,1974	
2.429	428.559	12	22	DEC 11,1974	
2.446	429.554	12	23	DEC 11,1974	
2.462	428.618	12	24	DEC 11,1974	
2.479	429.554	12	25	DEC 11,1974	
2.496	428.618	12	26	DEC 11,1974	
2.513	428.501	12	27	DEC 11,1974	
2.529	428.384	12	28	DEC 11,1974	
2.546	428.208	12	29	DEC 11,1974	
2.563	428.150	12	30	DEC 11,1974	
2.580	428.033	12	31	DEC 11,1974	
2.596	427.916	12	32	DEC 11,1974	
2.613	427.857	12	33	DEC 11,1974	
2.630	427.740	12	34	DEC 11,1974	
2.647	427.740	12	35	DEC 11,1974	
2.663	427.740	12	36	DEC 11,1974	

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PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
2.680	427.623	12	37	DEC 11,1974	
2.697	427.565	12	38	DEC 11,1974	
2.714	427.565	12	39	DEC 11,1974	
2.730	427.565	12	40	DEC 11,1974	
2.747	428.150	12	41	DEC 11,1974	
2.764	428.033	12	42	DEC 11,1974	
2.781	427.857	12	43	DEC 11,1974	
2.797	427.857	12	44	DEC 11,1974	
2.814	427.740	12	45	DEC 11,1974	
2.831	427.799	12	46	DEC 11,1974	
2.848	427.799	12	47	DEC 11,1974	
2.864	427.740	12	48	DEC 11,1974	
2.881	427.682	12	49	DEC 11,1974	
2.898	427.682	12	50	DEC 11,1974	
2.915	427.682	12	51	DEC 11,1974	
2.931	427.682	12	52	DEC 11,1974	
2.948	427.682	12	53	DEC 11,1974	
2.965	427.623	12	54	DEC 11,1974	
2.982	427.623	12	55	DEC 11,1974	
2.998	431.603	12	56	DEC 11,1974	
3.015	383.962	12	57	DEC 11,1974	
3.032	345.920	12	58	DEC 11,1974	START JETTING
3.049	347.500	12	59	DEC 11,1974	
3.066	347.266	13	00	DEC 11,1974	
3.082	346.857	13	01	DEC 11,1974	
3.099	299.567	13	02	DEC 11,1974	
3.116	311.916	13	03	DEC 11,1974	
3.133	323.036	13	04	DEC 11,1974	
3.149	333.513	13	05	DEC 11,1974	END JETTING
3.166	342.760	13	06	DEC 11,1974	
3.183	350.895	13	07	DEC 11,1974	
3.200	358.738	13	08	DEC 11,1974	
3.216	366.053	13	09	DEC 11,1974	
3.233	372.959	13	10	DEC 11,1974	
3.250	379.105	13	11	DEC 11,1974	
3.267	394.263	13	12	DEC 11,1974	
3.283	354.114	13	13	DEC 11,1974	
3.300	348.320	13	14	DEC 11,1974	START JETTING
3.317	348.027	13	15	DEC 11,1974	
3.334	347.676	13	16	DEC 11,1974	

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DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
3,350	347,910	13	17	DEC 11,1974	
3,367	347,618	13	18	DEC 11,1974	
3,384	347,383	13	19	DEC 11,1974	
3,401	347,266	13	20	DEC 11,1974	
3,417	346,681	13	21	DEC 11,1974	END JETTING
3,434	346.506	13	22	DEC 11,1974	
3,451	346,740	13	23	DEC 11,1974	
3,468	296,700	13	24	DEC 11,1974	
3,484	310.570	13	25	DEC 11,1974	
3,501	322.627	13	26	DEC 11,1974	
3,518	354,055	13	27	DEC 11,1974	
3,535	344,633	13	28	DEC 11,1974	
3,551	346,154	13	29	DEC 11,1974	
3,568	329,123	13	30	DEC 11,1974	
3,585	313.497	13	31	DEC 11,1974	
3.602	315.896	13	32	DEC 11,1974	
3,618	327,777	13	33	DEC 11,1974	
3,635	337,961	13	34	DEC 11,1974	
3,652	346.915	13	35	DEC 11,1974	
3.669	354.875	13	36	DEC 11,1974	
3,685	362.425	13	37	DEC 11,1974	
3.702	369,389	13	38	DEC 11,1974	
3,719	376,003	13	39	DEC 11,1974	
3.736	381,738	13	40	DEC 11,1974	
3,752	387,181	13	41	DEC 11,1974	
3,769	391,805	13	42	DEC 11,1974	
3,786	395,960	13	43	DEC 11,1974	
3,803	399,823	13	44	DEC 11,1974	
3,819	403.452	13	45	DEC 11,1974	
3,836	406.554	13	46	DEC 11,1974	
3,853	409.129	13	47	DEC 11,1974	
3,870	411,353	13	48	DEC 11,1974	
3,886	413.284	13	49	DEC 11,1974	
3,903	414.864	13	50	DEC 11,1974	
3.920	416,093	13	51	DEC 11,1974	
3,937	417,205	13	52	DEC 11,1974	
3,953	418,317	13	53	DEC 11,1974	
3,970	419,137	13	54	DEC 11,1974	
3,987	419,956	13	55	DEC 11,1974	
4,004	429,145	13	56	DEC 11,1974	

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DELTA TIME	PRESSURE (PSI)	TIME HR	TIME MIN	DATE	COMMENTS
4.020	348.378	13	57	DEC 11,1974	
4.037	345.101	13	58	DEC 11,1974	START JETTING
4.054	347.442	13	59	DEC 11,1974	
4.071	348.144	14	00	DEC 11,1974	
4.087	348.086	14	01	DEC 11,1974	
4.104	348.027	14	02	DEC 11,1974	
4.121	347.910	14	03	DEC 11,1974	
4.138	347.910	14	04	DEC 11,1974	
4.154	347.676	14	05	DEC 11,1974	
4.171	306.708	14	06	DEC 11,1974	
4.188	318.530	14	07	DEC 11,1974	
4.205	329.884	14	08	DEC 11,1974	END JETTING
4.221	339.775	14	09	DEC 11,1974	
4.238	348.437	14	10	DEC 11,1974	
4.255	356.396	14	11	DEC 11,1974	
4.272	363.244	14	12	DEC 11,1974	
4.288	370.267	14	13	DEC 11,1974	
4.305	376.705	14	14	DEC 11,1974	
4.322	382.616	14	15	DEC 11,1974	
4.339	387.708	14	16	DEC 11,1974	
4.355	392.332	14	17	DEC 11,1974	
4.372	396.487	14	18	DEC 11,1974	
4.389	400.291	14	19	DEC 11,1974	
4.406	403.627	14	20	DEC 11,1974	
4.422	406.612	14	21	DEC 11,1974	
4.439	409.129	14	22	DEC 11,1974	
4.456	411.294	14	23	DEC 11,1974	
4.473	412.991	14	24	DEC 11,1974	
4.489	414.513	14	25	DEC 11,1974	
4.506	415.801	14	26	DEC 11,1974	
4.523	416.796	14	27	DEC 11,1974	
4.540	417.615	14	28	DEC 11,1974	
4.556	418.376	14	29	DEC 11,1974	
4.573	419.195	14	30	DEC 11,1974	
4.590	419.781	14	31	DEC 11,1974	
4.607	420.366	14	32	DEC 11,1974	
4.623	420.951	14	33	DEC 11,1974	
4.640	421.419	14	34	DEC 11,1974	
4.657	421.770	14	35	DEC 11,1974	
4.674	422.122	14	36	DEC 11,1974	

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4,690	422,356	14	37	DEC 11,1974	
4,707	423,351	14	38	DEC 11,1974	
4,724	423,409	14	39	DEC 11,1974	
4,741	423,409	14	40	DEC 11,1974	
4,757	423,468	14	41	DEC 11,1974	
4,774	423,643	14	42	DEC 11,1974	
4,791	423,585	14	43	DEC 11,1974	
4,808	423,702	14	44	DEC 11,1974	
4,824	423,760	14	45	DEC 11,1974	
4,841	423,877	14	46	DEC 11,1974	
4,858	423,877	14	47	DEC 11,1974	
4,875	424,053	14	48	DEC 11,1974	
4,891	424,053	14	49	DEC 11,1974	
4,908	424,170	14	50	DEC 11,1974	
4,925	424,111	14	51	DEC 11,1974	
4,942	424.229	14	52	DEC 11,1974	
4,958	424,346	14	54	DEC 11,1974	
4,975	424,346	14	55	DEC 11,1974	
4,992	424,346	14	56	DEC 11,1974	
5,009	424,404	14	57	DEC 11,1974	
5,025	423,994	14	58	DEC 11,1974	
5,042	424.170	14	59	DEC 11,1974	
5,059	424,229	15	00	DEC 11,1974	
5,076	424,229	15	01	DEC 11,1974	
5,092	424,287	15	02	DEC 11,1974	
5,109	424,521	15	03	DEC 11,1974	
5,126	424,521	15	04	DEC 11,1974	
5.143	424,580	15	05	DEC 11,1974	
5,159	424,638	15	06	DEC 11,1974	
5,176	424,755	15	07	DEC 11,1974	
5,193	425,341	15	08	DEC 11,1974	
5,210	425,282	15	09	DEC 11,1974	
5,226	425,282	15	10	DEC 11,1974	
5,243	425,984	15	11	DEC 11,1974	
5,260	425,633	15	12	DEC 11,1974	
5,277	425,575	15	13	DEC 11,1974	
5,293	425,575	15	14	DEC 11,1974	
5,310	426,160	15	15	DEC 11,1974	
5,327	425,867	15	16	DEC 11,1974	
5,344	425,867	15	17	DEC 11,1974	

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DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
5,360	425,692	15	18	DEC 11,1974	
5,377	425,692	15	19	DEC 11,1974	
5,394	425,633	15	20	DEC 11,1974	
5,411	425,633	15	21	DEC 11,1974	
5,427	425,575	15	22	DEC 11,1974	
5,444	425,516	15	23	DEC 11,1974	
5,461	426,804	15	24	DEC 11,1974	
5,478	426,043	15	25	DEC 11,1974	
5,494	426,043	15	26	DEC 11,1974	
5,511	427,916	15	27	DEC 11,1974	
5,528	426,277	15	28	DEC 11,1974	
5,545	426,277	15	29	DEC 11,1974	
5,561	426,511	15	30	DEC 11,1974	
5,578	426,628	15	31	DEC 11,1974	
5,595	426,511	15	32	DEC 11,1974	
5,612	427,974	15	33	DEC 11,1974	
5,628	426,687	15	34	DEC 11,1974	
5,645	426,570	15	35	DEC 11,1974	
5,662	427,974	15	36	DEC 11,1974	
5,679	426,862	15	37	DEC 11,1974	
5,695	426,745	15	38	DEC 11,1974	
5,712	427,447	15	39	DEC 11,1974	
5,729	426,862	15	40	DEC 11,1974	
5,746	426,745	15	41	DEC 11,1974	
5,762	427,389	15	42	DEC 11,1974	
5,779	427,096	15	43	DEC 11,1974	
5,796	426,921	15	44	DEC 11,1974	
5,813	427,565	15	45	DEC 11,1974	
5,829	427,155	15	46	DEC 11,1974	
5,846	427,740	15	47	DEC 11,1974	
5,863	427,447	15	48	DEC 11,1974	
5,880	427,330	15	49	DEC 11,1974	
5,896	427,213	15	50	DEC 11,1974	
5,913	427,974	15	51	DEC 11,1974	
5,930	427,330	15	52	DEC 11,1974	
5,947	429,613	15	53	DEC 11,1974	
5,963	427,623	15	54	DEC 11,1974	
5,980	427,389	15	55	DEC 11,1974	
5,997	428,384	15	56	DEC 11,1974	
6,014	427,565	15	57	DEC 11,1974	

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6.030	430.725	15 58	DEC 11,1974	
6.047	427.857	15 59	DEC 11,1974	
6.064	427.565	16 00	DEC 11,1974	
6.081	427.506	16 01	DEC 11,1974	
6.098	427.974	16 02	DEC 11,1974	
6.114	427.799	16 03	DEC 11,1974	
6.131	427.565	16 04	DEC 11,1974	
6.148	427.447	16 05	DEC 11,1974	
6.165	427.447	16 06	DEC 11,1974	
6.181	427.330	16 07	DEC 11,1974	
6.198	427.213	16 08	DEC 11,1974	
6.215	427.213	16 09	DEC 11,1974	
6.232	427.155	16 10	DEC 11,1974	
6.248	427.213	16 11	DEC 11,1974	
6.265	427.096	16 12	DEC 11,1974	
6.282	427.096	16 13	DEC 11,1974	
6.299	430.783	16 14	DEC 11,1974	
6.315	430.491	16 15	DEC 11,1974	START 12 GPM
6.332	430.608	16 16	DEC 11,1974	PRODUCTION
6.349	429.789	16 17	DEC 11,1974	
6.366	422.239	16 18	DEC 11,1974	
6.382	319.935	16 19	DEC 11,1974	
6.399	241.334	16 20	DEC 11,1974	
6.416	226.234	16 21	DEC 11,1974	
6.433	233.199	16 22	DEC 11,1974	
6.449	237.529	16 23	DEC 11,1974	
6.466	235.305	16 24	DEC 11,1974	
6.483	233.784	16 25	DEC 11,1974	
6.500	232.496	16 26	DEC 11,1974	
6.516	232.204	16 27	DEC 11,1974	
6.533	232.262	16 28	DEC 11,1974	
6.550	231.969	16 29	DEC 11,1974	
6.567	231.618	16 30	DEC 11,1974	
6.583	231.618	16 31	DEC 11,1974	
6.600	230.975	16 32	DEC 11,1974	
6.617	230.916	16 33	DEC 11,1974	
6.634	230.975	16 34	DEC 11,1974	
6.650	231.209	16 35	DEC 11,1974	
6.667	231.267	16 36	DEC 11,1974	
6.684	231.443	16 37	DEC 11,1974	

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6.701	231.384	16	38	DEC 11,1974	
6.717	231.209	16	39	DEC 11,1974	
6.734	231.267	16	40	DEC 11,1974	
6.751	231.384	16	41	DEC 11,1974	
6.768	231.150	16	42	DEC 11,1974	
6.784	230.975	16	43	DEC 11,1974	
6.801	231.092	16	44	DEC 11,1974	
6.818	231.092	16	45	DEC 11,1974	
6.835	231.209	16	46	DEC 11,1974	
6.851	231.150	16	47	DEC 11,1974	
6.868	230.916	16	48	DEC 11,1974	
6.885	230.682	16	49	DEC 11,1974	
6.902	230.565	16	50	DEC 11,1974	
6.918	230.799	16	51	DEC 11,1974	
6.935	230.448	16	52	DEC 11,1974	
6.952	230.331	16	53	DEC 11,1974	
6.969	230.799	16	54	DEC 11,1974	
6.985	230.623	16	55	DEC 11,1974	
7.002	230.623	16	56	DEC 11,1974	
7.019	230.331	16	57	DEC 11,1974	
7.036	230.623	16	58	DEC 11,1974	
7.052	230.389	16	59	DEC 11,1974	
7.069	230.331	17	00	DEC 11,1974	
7.086	230.448	17	01	DEC 11,1974	
7.103	230.331	17	02	DEC 11,1974	
7.119	230.740	17	03	DEC 11,1974	
7.136	230.389	17	04	DEC 11,1974	
7.153	230.214	17	05	DEC 11,1974	
7.170	230.097	17	06	DEC 11,1974	
7.186	230.155	17	07	DEC 11,1974	
7.203	230.214	17	08	DEC 11,1974	
7.220	230.155	17	09	DEC 11,1974	
7.237	230.272	17	10	DEC 11,1974	
7.253	230.389	17	11	DEC 11,1974	
7.270	229.921	17	12	DEC 11,1974	
7.287	229.628	17	13	DEC 11,1974	
7.304	229.980	17	14	DEC 11,1974	
7.320	229.687	17	15	DEC 11,1974	
7.337	229.980	17	16	DEC 11,1974	
7.354	230.038	17	17	DEC 11,1974	

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7.371	229.745	17	18	DEC 11,1974	
7.387	230.097	17	19	DEC 11,1974	
7.404	229.980	17	20	DEC 11,1974	
7.421	229.804	17	21	DEC 11,1974	
7.438	230.155	17	22	DEC 11,1974	
7.454	229.804	17	23	DEC 11,1974	
7.471	229.628	17	24	DEC 11,1974	
7.488	229.687	17	25	DEC 11,1974	
7.505	229.628	17	26	DEC 11,1974	
7.521	229.628	17	27	DEC 11,1974	
7.538	229.921	17	28	DEC 11,1974	
7.555	229.745	17	29	DEC 11,1974	
7.572	229.980	17	30	DEC 11,1974	
7.588	187.841	17	31	DEC 11,1974	END 12 GPM
7.605	194.044	17	32	DEC 11,1974	PRODUCTION
7.622	219.152	17	33	DEC 11,1974	
7.639	236.535	17	34	DEC 11,1974	
7.655	251.985	17	35	DEC 11,1974	
7.672	265.915	17	36	DEC 11,1974	
7.689	278.615	17	37	DEC 11,1974	
7.706	290.613	17	38	DEC 11,1974	
7.722	301.265	17	39	DEC 11,1974	
7.739	312.502	17	40	DEC 11,1974	
7.756	321.807	17	41	DEC 11,1974	
7.773	331.874	17	42	DEC 11,1974	
7.789	340.477	17	43	DEC 11,1974	
7.806	348.320	17	44	DEC 11,1974	
7.823	354.875	17	45	DEC 11,1974	
7.840	361.605	17	46	DEC 11,1974	
7.856	367.399	17	47	DEC 11,1974	
7.873	373.311	17	48	DEC 11,1974	
7.890	377.934	17	49	DEC 11,1974	
7.907	382.967	17	50	DEC 11,1974	
7.923	386.596	17	51	DEC 11,1974	
7.940	390.634	17	52	DEC 11,1974	
7.957	393.619	17	53	DEC 11,1974	
7.974	397.423	17	54	DEC 11,1974	
7.990	399.179	17	55	DEC 11,1974	
8.007	400.818	17	56	DEC 11,1974	
8.024	403.627	17	57	DEC 11,1974	

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8,041	405,149	17	58	DEC 11,1974	
8,057	405.207	17	59	DEC 11,1974	
8,074	408,426	18	00	DEC 11,1974	
8,091	409,304	18	01	DEC 11,1974	
8,108	410.709	18	02	DEC 11,1974	
8,124	411,236	18	03	DEC 11,1974	
8,141	411,236	18	04	DEC 11,1974	
8,158	412,816	18	05	DEC 11,1974	
8,175	413,167	18	06	DEC 11,1974	
8,191	413,050	18	07	DEC 11,1974	
8,208	414,396	18	08	DEC 11,1974	
8,225	414.630	18	09	DEC 11,1974	
8,242	414,338	18	11	DEC 11,1974	
8,258	415.450	18	12	DEC 11,1974	
8,275	415.684	18	13	DEC 11,1974	
8,292	415.215	18	14	DEC 11,1974	
8.309	416.444	18	15	DEC 11,1974	
8,325	415.976	18	16	DEC 11,1974	
8,342	415,450	18	17	DEC 11,1974	
8,359	417,205	18	18	DEC 11,1974	
8,376	417,030	18	19	DEC 11,1974	
8,392	417.791	18	20	DEC 11,1974	
8,409	417,732	18	21	DEC 11,1974	
8,426	417,615	18	22	DEC 11,1974	
8,443	418,317	18	23	DEC 11,1974	
8,459	418.259	18	24	DEC 11,1974	
8,476	418,844	18	25	DEC 11,1974	
8,493	418,727	18	26	DEC 11,1974	
8,510	417.966	18	27	DEC 11,1974	
8.526	419,195	18	28	DEC 11,1974	
8,543	419,020	18	29	DEC 11,1974	
8,560	418,727	18	30	DEC 11,1974	
8,577	419.429	18	31	DEC 11,1974	
8,593	419,429	18	32	DEC 11,1974	
8,610	419.956	18	33	DEC 11,1974	
8,627	420,600	18	34	DEC 11,1974	
8,644	421,010	18	35	DEC 11,1974	
8,660	421,302	18	36	DEC 11,1974	
8,677	421,653	18	37	DEC 11,1974	
8,694	422,005	18	38	DEC 11,1974	

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DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
8.711	422.239	18	39	DEC 11,1974	
8.727	422.590	18	40	DEC 11,1974	
8.744	422.824	18	41	DEC 11,1974	
8.761	422.999	18	42	DEC 11,1974	
8.778	423.234	18	43	DEC 11,1974	
8.794	423.292	18	44	DEC 11,1974	
8.811	423.468	18	45	DEC 11,1974	
8.828	423.585	18	46	DEC 11,1974	
8.845	423.702	18	47	DEC 11,1974	
8.861	423.760	18	48	DEC 11,1974	
8.878	423.936	18	49	DEC 11,1974	
8.895	423.994	18	50	DEC 11,1974	
8.912	424.170	18	51	DEC 11,1974	
8.928	424.229	18	52	DEC 11,1974	
8.945	424.346	18	53	DEC 11,1974	
8.962	424.404	18	54	DEC 11,1974	
8.979	424.521	18	55	DEC 11,1974	
8.995	424.521	18	56	DEC 11,1974	
9.012	424.638	18	57	DEC 11,1974	
9.029	424.755	18	58	DEC 11,1974	
9.046	424.755	18	59	DEC 11,1974	
9.062	424.814	19	00	DEC 11,1974	
9.079	424.872	19	01	DEC 11,1974	
9.096	424.931	19	02	DEC 11,1974	
9.113	424.931	19	03	DEC 11,1974	
9.130	425.048	19	04	DEC 11,1974	
9.146	425.165	19	05	DEC 11,1974	
9.163	425.282	19	06	DEC 11,1974	
9.180	425.282	19	07	DEC 11,1974	
9.197	425.282	19	08	DEC 11,1974	
9.213	425.399	19	09	DEC 11,1974	
9.230	425.458	19	10	DEC 11,1974	
9.247	425.516	19	11	DEC 11,1974	
9.264	425.516	19	12	DEC 11,1974	
9.280	425.575	19	13	DEC 11,1974	
9.297	425.575	19	14	DEC 11,1974	
9.314	425.633	19	15	DEC 11,1974	
9.331	425.692	19	16	DEC 11,1974	
9.347	425.633	19	17	DEC 11,1974	
9.364	425.809	19	18	DEC 11,1974	

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DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
8.711	422.239	18	39	DEC 11,1974	
8.727	422.590	18	40	DEC 11,1974	
8.744	422.824	18	41	DEC 11,1974	
8.761	422.999	18	42	DEC 11,1974	
8.778	423.234	18	43	DEC 11,1974	
8.794	423.292	18	44	DEC 11,1974	
8.811	423.468	18	45	DEC 11,1974	
8.828	423.585	18	46	DEC 11,1974	
8.845	423.702	18	47	DEC 11,1974	
8.861	423.760	18	48	DEC 11,1974	
8.878	423.936	18	49	DEC 11,1974	
8.895	423.994	18	50	DEC 11,1974	
8.912	424.170	18	51	DEC 11,1974	
8.928	424.229	18	52	DEC 11,1974	
8.945	424.346	18	53	DEC 11,1974	
8.962	424.404	18	54	DEC 11,1974	
8.979	424.521	18	55	DEC 11,1974	
8.995	424.521	18	56	DEC 11,1974	
9.012	424.638	18	57	DEC 11,1974	
9.029	424.755	18	58	DEC 11,1974	
9.046	424.755	18	59	DEC 11,1974	
9.062	424.814	19	00	DEC 11,1974	
9.079	424.872	19	01	DEC 11,1974	
9.096	424.931	19	02	DEC 11,1974	
9.113	424.931	19	03	DEC 11,1974	
9.130	425.048	19	04	DEC 11,1974	
9.146	425.165	19	05	DEC 11,1974	
9.163	425.282	19	06	DEC 11,1974	
9.180	425.282	19	07	DEC 11,1974	
9.197	425.282	19	08	DEC 11,1974	
9.213	425.399	19	09	DEC 11,1974	
9.230	425.458	19	10	DEC 11,1974	
9.247	425.516	19	11	DEC 11,1974	
9.264	425.516	19	12	DEC 11,1974	
9.280	425.575	19	13	DEC 11,1974	
9.297	425.575	19	14	DEC 11,1974	
9.314	425.633	19	15	DEC 11,1974	
9.331	425.692	19	16	DEC 11,1974	
9.347	425.633	19	17	DEC 11,1974	
9.364	425.809	19	18	DEC 11,1974	

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9.381	425.867	19	19	DEC 11,1974	
9.398	425.867	19	20	DEC 11,1974	
9.414	425.984	19	21	DEC 11,1974	
9.431	425.984	19	22	DEC 11,1974	
9.448	426.043	19	23	DEC 11,1974	
9.465	426.043	19	24	DEC 11,1974	
9.481	426.043	19	25	DEC 11,1974	
9.498	426.160	19	26	DEC 11,1974	
9.515	426.101	19	27	DEC 11,1974	
9.532	426.101	19	28	DEC 11,1974	
9.548	426.218	19	29	DEC 11,1974	
9.565	426.218	19	30	DEC 11,1974	
9.582	426.218	19	31	DEC 11,1974	
9.599	426.218	19	32	DEC 11,1974	
9.615	426.218	19	33	DEC 11,1974	
9.632	426.394	19	34	DEC 11,1974	
9.649	426.394	19	35	DEC 11,1974	
9.666	426.394	19	36	DEC 11,1974	
9.682	426.335	19	37	DEC 11,1974	
9.699	426.453	19	38	DEC 11,1974	
9.716	426.511	19	39	DEC 11,1974	
9.733	426.453	19	40	DEC 11,1974	
9.749	426.453	19	41	DEC 11,1974	
9.766	426.511	19	42	DEC 11,1974	
9.783	426.570	19	43	DEC 11,1974	
9.800	426.628	19	44	DEC 11,1974	
9.816	426.570	19	45	DEC 11,1974	
9.833	426.628	19	46	DEC 11,1974	
9.850	426.628	19	47	DEC 11,1974	
9.867	426.687	19	48	DEC 11,1974	
9.883	426.687	19	49	DEC 11,1974	
9.900	426.745	19	50	DEC 11,1974	
9.917	426.745	19	51	DEC 11,1974	20 G/M ANNULUS
9.934	426.745	19	52	DEC 11,1974	
9.950	426.804	19	53	DEC 11,1974	
9.967	426.804	19	54	DEC 11,1974	
9.984	426.921	19	55	DEC 11,1974	
10.001	427.038	19	56	DEC 11,1974	
10.017	426.979	19	57	DEC 11,1974	
10.034	427.038	19	58	DEC 11,1974	

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10,051	427,038	19	59	DEC 11,1974	
10,068	427,038	20	00	DEC 11,1974	
10.084	427,096	20	01	DEC 11,1974	
10,101	427,155	20	02	DEC 11,1974	
10.118	427,213	20	03	DEC 11,1974	
10,135	427,155	20	04	DEC 11,1974	
10,151	427,213	20	05	DEC 11,1974	
10,168	427,330	20	06	DEC 11,1974	
10,185	427,389	20	07	DEC 11,1974	
10.202	427.330	20	08	DEC 11,1974	
10,218	427.389	20	09	DEC 11,1974	
10.235	427.506	20	10	DEC 11,1974	
10.252	427.447	20	11	DEC 11,1974	
10.269	427,447	20	12	DEC 11,1974	
10.285	427.506	20	13	DEC 11,1974	40 G/M ANNULUS
10.302	427.565	20	14	DEC 11,1974	
10.319	427.565	20	15	DEC 11,1974	
10.336	427.623	20	16	DEC 11,1974	
10,352	427.682	20	17	DEC 11,1974	
10,369	427,740	20	18	DEC 11,1974	
10,386	427,799	20	19	DEC 11,1974	
10,403	427.740	20	20	DEC 11,1974	
10,419	427.799	20	21	DEC 11,1974	
10,436	427,857	20	22	DEC 11,1974	
10,453	427.916	20	23	DEC 11,1974	
10,470	427,916	20	24	DEC 11,1974	
10.486	428,033	20	25	DEC 11,1974	
10,503	428,033	20	26	DEC 11,1974	
10,520	428,033	20	27	DEC 11,1974	
10,537	428.033	20	28	DEC 11,1974	
10,553	428,091	20	29	DEC 11,1974	
10.570	428,150	20	30	DEC 11,1974	
10,587	428,091	20	31	DEC 11,1974	
10,604	428,091	20	32	DEC 11,1974	
10.620	428.208	20	33	DEC 11,1974	60 G/M ANNULUS
10,637	428.208	20	34	DEC 11,1974	
10,654	428,267	20	35	DEC 11,1974	
10,671	428,208	20	36	DEC 11,1974	
10.687	428,267	20	37	DEC 11,1974	
10,704	428,325	20	38	DEC 11,1974	

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10.721	428.325	20	39	DEC 11,1974	
10.738	428.384	20	40	DEC 11,1974	
10.754	428.442	20	41	DEC 11,1974	
10.771	428.442	20	42	DEC 11,1974	
10.788	428.442	20	43	DEC 11,1974	
10.805	428.501	20	44	DEC 11,1974	
10.821	428.501	20	45	DEC 11,1974	
10.838	428.501	20	46	DEC 11,1974	
10.855	428.501	20	47	DEC 11,1974	
10.872	428.501	20	48	DEC 11,1974	
10.888	428.501	20	49	DEC 11,1974	
10.905	428.618	20	50	DEC 11,1974	
10.922	428.618	20	51	DEC 11,1974	
10.939	428.618	20	52	DEC 11,1974	
10.955	428.677	20	53	DEC 11,1974	DECLINE
10.972	428.735	20	54	DEC 11,1974	
10.989	428.677	20	55	DEC 11,1974	
11.006	428.618	20	56	DEC 11,1974	
11.022	428.501	20	57	DEC 11,1974	
11.039	428.501	20	58	DEC 11,1974	
11.056	428.501	20	59	DEC 11,1974	
11.073	428.442	21	00	DEC 11,1974	
11.089	428.442	21	01	DEC 11,1974	
11.106	428.501	21	02	DEC 11,1974	
11.123	428.384	21	03	DEC 11,1974	
11.140	428.325	21	04	DEC 11,1974	
11.156	428.325	21	05	DEC 11,1974	
11.173	428.325	21	06	DEC 11,1974	
11.190	428.325	21	07	DEC 11,1974	
11.207	428.267	21	08	DEC 11,1974	
11.223	428.267	21	09	DEC 11,1974	
11.240	428.384	21	10	DEC 11,1974	
11.257	428.325	21	11	DEC 11,1974	
11.274	428.325	21	12	DEC 11,1974	
11.290	428.325	21	13	DEC 11,1974	
11.307	428.325	21	14	DEC 11,1974	
11.324	428.384	21	15	DEC 11,1974	
11.341	428.384	21	16	DEC 11,1974	
11.357	428.325	21	17	DEC 11,1974	
11.374	428.384	21	18	DEC 11,1974	

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DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
11,391	428,442	21	19	DEC 11,1974	
11.408	428,384	21	20	DEC 11,1974	
11,424	428,442	21	21	DEC 11,1974	
11,441	428,501	21	22	DEC 11,1974	
11,458	428.442	21	23	DEC 11,1974	
11,475	428,384	21	24	DEC 11,1974	
11,491	428.442	21	25	DEC 11,1974	
11.508	428.442	21	26	DEC 11,1974	
11,525	428,442	21	27	DEC 11,1974	
11,542	428,442	21	29	DEC 11,1974	
11,558	428,735	21	30	DEC 11,1974	
11.575	428,911	21	31	DEC 11,1974	
11,592	428,384	21	32	DEC 11,1974	
11,609	428.325	21	33	DEC 11,1974	
11.625	428,325	21	34	DEC 11,1974	2 G/M INSIDE
11,642	428.325	21	35	DEC 11,1974	DRILL PIPE
11.659	428,442	21	36	DEC 11,1974	
11,676	429.437	21	37	DEC 11,1974	
11,692	429,613	21	38	DEC 11,1974	
11,709	429,730	21	39	DEC 11,1974	
11.726	429.496	21	40	DEC 11,1974	
11,743	429,554	21	41	DEC 11,1974	
11,759	429.789	21	42	DEC 11,1974	
11,776	429,730	21	43	DEC 11,1974	
11,793	429,554	21	44	DEC 11,1974	
11,810	429,730	21	45	DEC 11,1974	
11.826	429.964	21	46	DEC 11,1974	
11,843	429,789	21	47	DEC 11,1974	
11,860	429.671	21	48	DEC 11,1974	
11,877	429,847	21	49	DEC 11,1974	
11,893	430.081	21	50	DEC 11,1974	
11.910	429.906	21	51	DEC 11,1974	
11,927	428,794	21	52	DEC 11,1974	
11,944	453,082	21	53	DEC 11,1974	
11,960	469,060	21	54	DEC 11,1974	5 G/M INSIDE
11.977	468.182	21	55	DEC 11,1974	DRILL PIPE
11.994	472,396	21	56	DEC 11,1974	
12,011	478,014	21	57	DEC 11,1974	
12.027	474,737	21	58	DEC 11,1974	
12.044	477,019	21	59	DEC 11,1974	

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12,061	484,159	22	00	DEC 11,1974	
12.078	480,180	22	01	DEC 11,1974	
12,094	483,984	22	02	DEC 11,1974	
12,111	489,778	22	03	DEC 11,1974	
12,128	486,852	22	04	DEC 11,1974	
12,145	490,071	22	05	DEC 11,1974	
12,161	485,154	22	06	DEC 11,1974	
12,178	497,328	22	07	DEC 11,1974	
12,195	489,661	22	08	DEC 11,1974	
12,212	494,577	22	09	DEC 11,1974	
12,229	488.607	22	10	DEC 11,1974	
12,245	498,850	22	11	DEC 11,1974	
12,262	492,529	22	12	DEC 11,1974	
12.279	489.602	22	13	DEC 11,1974	
12.296	500.371	22	14	DEC 11,1974	10 G/M INSIDE
12,312	493,407	22	15	DEC 11,1974	DRILL PIPE
12.329	495,572	22	16	DEC 11,1974	
12,346	498,498	22	17	DEC 11,1974	
12,363	517,988	22	18	DEC 11,1974	
12,379	462,505	22	19	DEC 11,1974	
12.396	486,383	22	20	DEC 11,1974	
12,413	466,777	22	21	DEC 11,1974	
12,430	471,225	22	22	DEC 11,1974	
12,446	483,399	22	23	DEC 11,1974	
12,463	482,170	22	24	DEC 11,1974	
12,480	481,175	22	25	DEC 11,1974	
12,497	478,424	22	26	DEC 11,1974	
12,513	482.287	22	27	DEC 11,1974	
12,530	488,139	22	28	DEC 11,1974	
12,547	475,263	22	29	DEC 11,1974	
12,564	488,022	22	30	DEC 11,1974	
12,580	478,834	22	31	DEC 11,1974	
12,597	483,691	22	32	DEC 11,1974	
12,614	488,490	22	33	DEC 11,1974	
12,631	489,661	22	34	DEC 11,1974	20 G/M INSIDE
12,647	489.251	22	35	DEC 11,1974	DRILL PIPE
12,664	506,517	22	36	DEC 11,1974	
12,681	481,877	22	37	DEC 11,1974	
12,698	431,603	22	38	DEC 11,1974	
12,714	430,901	22	39	DEC 11,1974	

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12.731	430.842	22 40	DEC 11,1974	
12.748	430.842	22 41	DEC 11,1974	
12.765	430.783	22 42	DEC 11,1974	
12.781	430.783	22 43	DEC 11,1974	
12.798	430.725	22 44	DEC 11,1974	
12.815	430.783	22 45	DEC 11,1974	
12.832	430.783	22 46	DEC 11,1974	
12.848	430.725	22 47	DEC 11,1974	
12.865	430.783	22 48	DEC 11,1974	
12.882	430.783	22 49	DEC 11,1974	
12.899	430.783	22 50	DEC 11,1974	
12.915	430.783	22 51	DEC 11,1974	
12.932	430.666	22 52	DEC 11,1974	
12.949	430.666	22 53	DEC 11,1974	
12.966	430.783	22 54	DEC 11,1974	
12.982	430.666	22 55	DEC 11,1974	
12.999	430.666	22 56	DEC 11,1974	
13.016	430.608	22 57	DEC 11,1974	
13.033	430.666	22 58	DEC 11,1974	
13.049	430.666	22 59	DEC 11,1974	
13.066	430.608	23 00	DEC 11,1974	
13.083	430.549	23 01	DEC 11,1974	
13.100	430.549	23 02	DEC 11,1974	
13.116	430.666	23 03	DEC 11,1974	
13.133	430.608	23 04	DEC 11,1974	
13.150	430.549	23 05	DEC 11,1974	
13.167	430.608	23 06	DEC 11,1974	
13.183	430.608	23 07	DEC 11,1974	END TEST

788 POINTS REPORTED THIS RUN

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PREPARED FOR

ATLANTIC RICHFIELD COMPANY

WELL NUMBER	FEDERAL SG 20
FIELD/LEASE	TRACT C-B SORGHUM GULCH
COUNTY/PARISH	RIO BLANCO
STATE	COLORADO
TYPE OF TEST	DRILL STEM
REFERENCE ELEV	GROUND LEVEL

ADDITIONAL INFORMATION

USED GAUGE 88 WITH 1000 LB. ELEMENT.

GAUGE LOCATED OUTSIDE D.P. IN ANNULUS

ABOVE PACKER.

DEPTH OF GAUGE IS 907 FT.

TEST INTERVAL SURFACE TO 945 FT.

SET PACKER DEPTH IS 945 FT.

INITIAL HYDROSTATIC IS 383.79 PSI

FINAL HYDROSTATIC IS 384.33 PSI

GROUND LEVEL REFERENCE IS 7036 FT.

814 POINTS REPORTED THIS JOB

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DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0.000	385.029	09	21	DEC 11,1974	INITIAL SHUTIN
.017	384.935	09	22	DEC 11,1974	
.033	385.029	09	23	DEC 11,1974	
.050	385.076	09	24	DEC 11,1974	
.067	385.029	09	25	DEC 11,1974	
.083	385.076	09	26	DEC 11,1974	
.100	385.076	09	27	DEC 11,1974	
.117	385.146	09	28	DEC 11,1974	
.133	385.076	09	29	DEC 11,1974	
.150	385.122	09	30	DEC 11,1974	
.167	385.076	09	31	DEC 11,1974	
.183	385.052	09	32	DEC 11,1974	
.200	385.146	09	33	DEC 11,1974	
.217	385.169	09	34	DEC 11,1974	
.233	385.169	09	35	DEC 11,1974	
.250	385.122	09	36	DEC 11,1974	
.267	385.169	09	37	DEC 11,1974	
.283	385.216	09	38	DEC 11,1974	
.300	385.192	09	39	DEC 11,1974	
.317	385.239	09	40	DEC 11,1974	
.333	385.192	09	41	DEC 11,1974	
.350	385.169	09	42	DEC 11,1974	
.367	385.216	09	43	DEC 11,1974	
.383	385.239	09	44	DEC 11,1974	
.400	385.309	09	45	DEC 11,1974	
.417	385.239	09	46	DEC 11,1974	
.433	385.239	09	47	DEC 11,1974	
.450	385.286	09	48	DEC 11,1974	
.467	385.473	09	49	DEC 11,1974	
.483	384.935	09	50	DEC 11,1974	
.500	385.379	09	51	DEC 11,1974	END SHUT-IN

31 POINTS REPORTED THIS RUN

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DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0.000	385.637	09	56	DEC 11,1974	START FLOW
.017	385.800	09	57	DEC 11,1974	
.034	385.777	09	58	DEC 11,1974	
.051	385.824	09	59	DEC 11,1974	
.067	385.847	10	00	DEC 11,1974	
.084	385.847	10	01	DEC 11,1974	
.101	385.894	10	02	DEC 11,1974	
.118	385.870	10	03	DEC 11,1974	
.135	385.870	10	04	DEC 11,1974	
.152	385.941	10	05	DEC 11,1974	
.169	385.847	10	06	DEC 11,1974	
.185	385.941	10	07	DEC 11,1974	
.202	385.917	10	08	DEC 11,1974	
.219	385.917	10	09	DEC 11,1974	
.236	385.964	10	10	DEC 11,1974	
.253	386.011	10	11	DEC 11,1974	
.270	386.011	10	12	DEC 11,1974	
.287	386.034	10	13	DEC 11,1974	
.303	386.011	10	14	DEC 11,1974	
.320	386.011	10	15	DEC 11,1974	
.337	386.011	10	16	DEC 11,1974	
.354	386.057	10	17	DEC 11,1974	
.371	386.034	10	18	DEC 11,1974	
.388	386.081	10	19	DEC 11,1974	
.405	386.081	10	20	DEC 11,1974	
.421	386.104	10	21	DEC 11,1974	
.438	386.057	10	22	DEC 11,1974	
.455	386.128	10	23	DEC 11,1974	
.472	386.128	10	24	DEC 11,1974	
.489	386.081	10	25	DEC 11,1974	
.506	386.128	10	26	DEC 11,1974	
.523	386.198	10	27	DEC 11,1974	
.539	386.198	10	28	DEC 11,1974	
.556	386.174	10	29	DEC 11,1974	
.573	386.198	10	30	DEC 11,1974	
.590	386.198	10	31	DEC 11,1974	
.607	386.198	10	32	DEC 11,1974	
.624	386.244	10	33	DEC 11,1974	
.641	386.221	10	34	DEC 11,1974	
.657	386.221	10	35	DEC 11,1974	

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DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
.674	386.244	10	36	DEC 11,1974	
.691	386.244	10	37	DEC 11,1974	
.708	386.291	10	38	DEC 11,1974	
.725	386.291	10	39	DEC 11,1974	
.742	386.268	10	41	DEC 11,1974	
.759	386.268	10	42	DEC 11,1974	
.775	386.291	10	43	DEC 11,1974	
.792	386.315	10	44	DEC 11,1974	
.809	386.315	10	45	DEC 11,1974	
.826	386.338	10	46	DEC 11,1974	
.843	386.361	10	47	DEC 11,1974	
.860	386.361	10	48	DEC 11,1974	
.877	386.385	10	49	DEC 11,1974	
.893	386.385	10	50	DEC 11,1974	
.910	386.385	10	51	DEC 11,1974	
.927	386.408	10	52	DEC 11,1974	
.944	386.455	10	53	DEC 11,1974	
.961	386.431	10	54	DEC 11,1974	
.978	386.431	10	55	DEC 11,1974	
.995	386.478	10	56	DEC 11,1974	
1.012	386.502	10	57	DEC 11,1974	
1.028	386.478	10	58	DEC 11,1974	
1.045	386.478	10	59	DEC 11,1974	
1.062	386.502	11	00	DEC 11,1974	
1.079	386.525	11	01	DEC 11,1974	
1.096	386.478	11	02	DEC 11,1974	
1.113	386.525	11	03	DEC 11,1974	
1.130	386.525	11	04	DEC 11,1974	
1.146	386.548	11	05	DEC 11,1974	
1.163	386.548	11	06	DEC 11,1974	
1.180	386.572	11	07	DEC 11,1974	
1.197	386.572	11	08	DEC 11,1974	
1.214	386.595	11	09	DEC 11,1974	
1.231	386.572	11	10	DEC 11,1974	
1.248	386.618	11	11	DEC 11,1974	
1.264	386.618	11	12	DEC 11,1974	
1.281	386.642	11	13	DEC 11,1974	
1.298	386.642	11	14	DEC 11,1974	
1.315	386.665	11	15	DEC 11,1974	
1.332	386.665	11	16	DEC 11,1974	

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DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
1.349	386.689	11	17	DEC 11,1974	
1.366	386.712	11	18	DEC 11,1974	
1.382	386.712	11	19	DEC 11,1974	
1.399	386.712	11	20	DEC 11,1974	
1.416	386.712	11	21	DEC 11,1974	
1.433	386.735	11	22	DEC 11,1974	
1.450	386.712	11	23	DEC 11,1974	
1.467	386.759	11	24	DEC 11,1974	
1.484	386.782	11	25	DEC 11,1974	
1.500	386.759	11	26	DEC 11,1974	
1.517	386.805	11	27	DEC 11,1974	
1.534	386.829	11	28	DEC 11,1974	
1.551	386.852	11	29	DEC 11,1974	
1.568	386.852	11	30	DEC 11,1974	
1.585	386.829	11	31	DEC 11,1974	
1.602	386.829	11	32	DEC 11,1974	
1.618	386.876	11	33	DEC 11,1974	
1.635	386.899	11	34	DEC 11,1974	
1.652	386.899	11	35	DEC 11,1974	
1.669	386.899	11	36	DEC 11,1974	
1.686	386.922	11	37	DEC 11,1974	
1.703	386.922	11	38	DEC 11,1974	
1.720	386.946	11	39	DEC 11,1974	
1.736	386.946	11	40	DEC 11,1974	
1.753	386.969	11	41	DEC 11,1974	
1.770	386.946	11	42	DEC 11,1974	
1.787	386.969	11	43	DEC 11,1974	
1.804	386.969	11	44	DEC 11,1974	
1.821	386.969	11	45	DEC 11,1974	
1.838	386.969	11	46	DEC 11,1974	
1.854	386.992	11	47	DEC 11,1974	
1.871	387.016	11	48	DEC 11,1974	
1.888	387.016	11	49	DEC 11,1974	
1.905	387.039	11	50	DEC 11,1974	
1.922	387.039	11	51	DEC 11,1974	
1.939	387.039	11	52	DEC 11,1974	
1.956	387.039	11	53	DEC 11,1974	
1.972	387.063	11	54	DEC 11,1974	
1.989	387.063	11	55	DEC 11,1974	
2.006	387.063	11	56	DEC 11,1974	

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DELTA TIME	PRESSURE (PSI)	TIME HR MIN	DATE	COMMENTS
2.023	387.109	11 57	DEC 11,1974	
2.040	387.063	11 58	DEC 11,1974	
2.057	387.109	11 59	DEC 11,1974	
2.074	387.109	12 00	DEC 11,1974	
2.090	387.109	12 01	DEC 11,1974	
2.107	387.109	12 02	DEC 11,1974	
2.124	387.109	12 03	DEC 11,1974	
2.141	387.109	12 04	DEC 11,1974	
2.158	387.133	12 05	DEC 11,1974	
2.175	387.133	12 06	DEC 11,1974	
2.192	387.179	12 07	DEC 11,1974	
2.208	387.156	12 09	DEC 11,1974	
2.225	387.156	12 10	DEC 11,1974	
2.242	387.179	12 11	DEC 11,1974	
2.259	387.203	12 12	DEC 11,1974	
2.276	387.203	12 13	DEC 11,1974	
2.293	387.226	12 14	DEC 11,1974	
2.310	387.226	12 15	DEC 11,1974	
2.326	387.250	12 16	DEC 11,1974	
2.343	387.273	12 17	DEC 11,1974	
2.360	387.250	12 18	DEC 11,1974	
2.377	387.250	12 19	DEC 11,1974	
2.394	387.250	12 20	DEC 11,1974	
2.411	387.296	12 21	DEC 11,1974	
2.428	387.250	12 22	DEC 11,1974	
2.444	387.296	12 23	DEC 11,1974	
2.461	387.296	12 24	DEC 11,1974	
2.478	387.320	12 25	DEC 11,1974	
2.495	387.320	12 26	DEC 11,1974	
2.512	387.296	12 27	DEC 11,1974	
2.529	387.320	12 28	DEC 11,1974	
2.546	387.343	12 29	DEC 11,1974	
2.562	387.343	12 30	DEC 11,1974	
2.579	387.343	12 31	DEC 11,1974	
2.596	387.320	12 32	DEC 11,1974	
2.613	387.390	12 33	DEC 11,1974	
2.630	387.366	12 34	DEC 11,1974	
2.647	387.366	12 35	DEC 11,1974	
2.664	387.390	12 36	DEC 11,1974	
2.680	387.413	12 37	DEC 11,1974	

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DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
2.697	387.413	12	38	DEC 11,1974	
2.714	387.413	12	39	DEC 11,1974	
2.731	387.437	12	40	DEC 11,1974	
2.748	387.437	12	41	DEC 11,1974	
2.765	387.437	12	42	DEC 11,1974	
2.782	387.460	12	43	DEC 11,1974	
2.799	387.460	12	44	DEC 11,1974	
2.815	387.460	12	45	DEC 11,1974	
2.832	387.437	12	46	DEC 11,1974	
2.849	387.483	12	47	DEC 11,1974	
2.866	387.483	12	48	DEC 11,1974	
2.883	387.483	12	49	DEC 11,1974	
2.900	387.483	12	50	DEC 11,1974	
2.917	387.483	12	51	DEC 11,1974	
2.933	387.507	12	52	DEC 11,1974	
2.950	387.530	12	53	DEC 11,1974	
2.967	387.507	12	54	DEC 11,1974	
2.984	387.507	12	55	DEC 11,1974	
3.001	387.553	12	56	DEC 11,1974	
3.018	387.553	12	57	DEC 11,1974	
3.035	387.553	12	58	DEC 11,1974	START JETTING
3.051	387.530	12	59	DEC 11,1974	
3.068	387.530	13	00	DEC 11,1974	
3.085	387.577	13	01	DEC 11,1974	
3.102	387.553	13	02	DEC 11,1974	
3.119	387.577	13	03	DEC 11,1974	
3.136	387.577	13	04	DEC 11,1974	
3.153	387.600	13	05	DEC 11,1974	END JETTING
3.169	387.600	13	06	DEC 11,1974	
3.186	387.577	13	07	DEC 11,1974	
3.203	387.577	13	08	DEC 11,1974	
3.220	387.647	13	09	DEC 11,1974	
3.237	387.647	13	10	DEC 11,1974	
3.254	387.600	13	11	DEC 11,1974	
3.271	387.670	13	12	DEC 11,1974	
3.287	387.647	13	13	DEC 11,1974	
3.304	387.670	13	14	DEC 11,1974	START JETTING
3.321	387.647	13	15	DEC 11,1974	
3.338	387.647	13	16	DEC 11,1974	
3.355	387.670	13	17	DEC 11,1974	

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3.372	387.670	13	18	DEC 11,1974	
3.389	387.694	13	19	DEC 11,1974	
3.405	387.740	13	20	DEC 11,1974	
3.422	387.740	13	21	DEC 11,1974	END JETTING
3.439	387.717	13	22	DEC 11,1974	
3.456	387.740	13	23	DEC 11,1974	
3.473	387.740	13	24	DEC 11,1974	
3.490	387.740	13	25	DEC 11,1974	
3.507	387.764	13	26	DEC 11,1974	
3.523	387.740	13	27	DEC 11,1974	
3.540	387.740	13	28	DEC 11,1974	
3.557	387.787	13	29	DEC 11,1974	
3.574	387.787	13	30	DEC 11,1974	
3.591	387.787	13	31	DEC 11,1974	
3.608	387.787	13	32	DEC 11,1974	
3.625	387.811	13	33	DEC 11,1974	
3.641	387.811	13	34	DEC 11,1974	
3.658	387.834	13	35	DEC 11,1974	
3.675	387.857	13	37	DEC 11,1974	
3.692	387.834	13	38	DEC 11,1974	
3.709	387.857	13	39	DEC 11,1974	
3.726	387.857	13	40	DEC 11,1974	
3.743	387.881	13	41	DEC 11,1974	
3.759	387.881	13	42	DEC 11,1974	
3.776	387.881	13	43	DEC 11,1974	
3.793	387.881	13	44	DEC 11,1974	
3.810	387.881	13	45	DEC 11,1974	
3.827	387.881	13	46	DEC 11,1974	
3.844	387.904	13	47	DEC 11,1974	
3.861	387.904	13	48	DEC 11,1974	
3.877	387.928	13	49	DEC 11,1974	
3.894	387.928	13	50	DEC 11,1974	
3.911	387.904	13	51	DEC 11,1974	
3.928	387.904	13	52	DEC 11,1974	
3.945	387.928	13	53	DEC 11,1974	
3.962	387.951	13	54	DEC 11,1974	
3.979	387.974	13	55	DEC 11,1974	
3.995	387.974	13	56	DEC 11,1974	
4.012	387.974	13	57	DEC 11,1974	
4.029	387.998	13	58	DEC 11,1974	START JETTING

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GAUGE/RUN NUMBER                                                  DATE OF RUN
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    DELTA   PRESSURE                TIME    DATE             COMMENTS
    TIME    (PSI)                  HR MIN

    4.046   387.998                13  59 DEC 11,1974
    4.063   387.998                14  00 DEC 11,1974
    4.080   387.998                14  01 DEC 11,1974
    4.097   387.998                14  02 DEC 11,1974
    4.113   388.021                14  03 DEC 11,1974
    4.130   387.998                14  04 DEC 11,1974
    4.147   388.021                14  05 DEC 11,1974
    4.164   388.021                14  06 DEC 11,1974
    4.181   387.998                14  07 DEC 11,1974
    4.198   388.021                14  08 DEC 11,1974   END JETTING
    4.215   388.044                14  09 DEC 11,1974
    4.231   388.044                14  10 DEC 11,1974
    4.248   388.068                14  11 DEC 11,1974
    4.265   388.068                14  12 DEC 11,1974
    4.282   388.091                14  13 DEC 11,1974
    4.299   388.091                14  14 DEC 11,1974
    4.316   388.091                14  15 DEC 11,1974
    4.333   388.115                14  16 DEC 11,1974
    4.349   388.115                14  17 DEC 11,1974
    4.366   388.138                14  18 DEC 11,1974
    4.383   388.115                14  19 DEC 11,1974
    4.400   388.115                14  20 DEC 11,1974
    4.417   388.115                14  21 DEC 11,1974
    4.434   388.115                14  22 DEC 11,1974
    4.451   388.115                14  23 DEC 11,1974
    4.467   388.138                14  24 DEC 11,1974
    4.484   388.138                14  25 DEC 11,1974
    4.501   388.161                14  26 DEC 11,1974
    4.518   388.185                14  27 DEC 11,1974
    4.535   388.185                14  28 DEC 11,1974
    4.552   388.185                14  29 DEC 11,1974
    4.569   388.185                14  30 DEC 11,1974
    4.586   388.208                14  31 DEC 11,1974
    4.602   388.208                14  32 DEC 11,1974
    4.619   388.208                14  33 DEC 11,1974
    4.636   388.231                14  34 DEC 11,1974
    4.653   388.208                14  35 DEC 11,1974
    4.670   388.208                14  36 DEC 11,1974
    4.687   388.255                14  37 DEC 11,1974
    4.704   388.255                14  38 DEC 11,1974
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DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
4.720	388.255	14	39	DEC 11,1974	
4.737	388.231	14	40	DEC 11,1974	
4.754	388.255	14	41	DEC 11,1974	
4.771	388.278	14	42	DEC 11,1974	
4.788	388.278	14	43	DEC 11,1974	
4.805	388.302	14	44	DEC 11,1974	
4.822	388.302	14	45	DEC 11,1974	
4.838	388.325	14	46	DEC 11,1974	
4.855	388.348	14	47	DEC 11,1974	
4.872	388.325	14	48	DEC 11,1974	
4.889	388.348	14	49	DEC 11,1974	
4.906	388.325	14	50	DEC 11,1974	
4.923	388.348	14	51	DEC 11,1974	
4.940	388.325	14	52	DEC 11,1974	
4.956	388.348	14	53	DEC 11,1974	
4.973	388.372	14	54	DEC 11,1974	
4.990	388.372	14	55	DEC 11,1974	
5.007	388.395	14	56	DEC 11,1974	
5.024	388.395	14	57	DEC 11,1974	
5.041	388.418	14	58	DEC 11,1974	
5.058	388.418	14	59	DEC 11,1974	
5.074	388.418	15	00	DEC 11,1974	
5.091	388.418	15	01	DEC 11,1974	
5.108	388.418	15	02	DEC 11,1974	
5.125	388.418	15	03	DEC 11,1974	
5.142	388.418	15	05	DEC 11,1974	
5.159	388.465	15	06	DEC 11,1974	
5.176	388.465	15	07	DEC 11,1974	
5.192	388.442	15	08	DEC 11,1974	
5.209	388.465	15	09	DEC 11,1974	
5.226	388.465	15	10	DEC 11,1974	
5.243	388.465	15	11	DEC 11,1974	
5.260	388.465	15	12	DEC 11,1974	
5.277	388.465	15	13	DEC 11,1974	
5.294	388.512	15	14	DEC 11,1974	
5.310	388.489	15	15	DEC 11,1974	
5.327	388.535	15	16	DEC 11,1974	
5.344	388.512	15	17	DEC 11,1974	
5.361	388.512	15	18	DEC 11,1974	
5.378	388.512	15	19	DEC 11,1974	

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DELTA TIME	PRESSURE (PSI)	TIME		DATE	COMMENTS
		HR	MIN		
5.395	388.535	15	20	DEC 11,1974	
5.412	388.512	15	21	DEC 11,1974	
5.428	388.535	15	22	DEC 11,1974	
5.445	388.535	15	23	DEC 11,1974	
5.462	388.535	15	24	DEC 11,1974	
5.479	388.535	15	25	DEC 11,1974	
5.496	388.535	15	26	DEC 11,1974	
5.513	388.582	15	27	DEC 11,1974	
5.530	388.559	15	28	DEC 11,1974	
5.546	388.582	15	29	DEC 11,1974	
5.563	388.605	15	30	DEC 11,1974	
5.580	388.582	15	31	DEC 11,1974	
5.597	388.582	15	32	DEC 11,1974	
5.614	388.629	15	33	DEC 11,1974	
5.631	388.629	15	34	DEC 11,1974	
5.648	388.652	15	35	DEC 11,1974	
5.664	388.629	15	36	DEC 11,1974	
5.681	388.652	15	37	DEC 11,1974	
5.698	388.676	15	38	DEC 11,1974	
5.715	388.652	15	39	DEC 11,1974	
5.732	388.629	15	40	DEC 11,1974	
5.749	388.652	15	41	DEC 11,1974	
5.766	388.652	15	42	DEC 11,1974	
5.782	388.676	15	43	DEC 11,1974	
5.799	388.676	15	44	DEC 11,1974	
5.816	388.699	15	45	DEC 11,1974	
5.833	388.699	15	46	DEC 11,1974	
5.850	388.676	15	47	DEC 11,1974	
5.867	388.699	15	48	DEC 11,1974	
5.884	388.699	15	49	DEC 11,1974	
5.900	388.722	15	50	DEC 11,1974	
5.917	388.746	15	51	DEC 11,1974	
5.934	388.676	15	52	DEC 11,1974	
5.951	388.676	15	53	DEC 11,1974	
5.968	388.722	15	54	DEC 11,1974	
5.985	388.699	15	55	DEC 11,1974	
6.002	388.699	15	56	DEC 11,1974	
6.018	388.746	15	57	DEC 11,1974	
6.035	388.769	15	58	DEC 11,1974	
6.052	388.746	15	59	DEC 11,1974	

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DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
6.069	388.746	16	00	DEC 11,1974	
6.086	388.746	16	01	DEC 11,1974	
6.103	388.699	16	02	DEC 11,1974	
6.120	388.746	16	03	DEC 11,1974	
6.136	388.746	16	04	DEC 11,1974	
6.153	388.769	16	05	DEC 11,1974	
6.170	388.769	16	06	DEC 11,1974	
6.187	388.769	16	07	DEC 11,1974	
6.204	388.769	16	08	DEC 11,1974	
6.221	388.769	16	09	DEC 11,1974	
6.238	388.769	16	10	DEC 11,1974	
6.254	388.792	16	11	DEC 11,1974	
6.271	388.792	16	12	DEC 11,1974	
6.288	388.839	16	13	DEC 11,1974	
6.305	388.839	16	14	DEC 11,1974	
6.322	388.792	16	15	DEC 11,1974	START 12 GPM
6.339	388.839	16	16	DEC 11,1974	PRODUCTION
6.356	388.839	16	17	DEC 11,1974	
6.373	388.863	16	18	DEC 11,1974	
6.389	388.839	16	19	DEC 11,1974	
6.406	388.839	16	20	DEC 11,1974	
6.423	388.839	16	21	DEC 11,1974	
6.440	388.839	16	22	DEC 11,1974	
6.457	388.839	16	23	DEC 11,1974	
6.474	388.839	16	24	DEC 11,1974	
6.491	388.863	16	25	DEC 11,1974	
6.507	388.863	16	26	DEC 11,1974	
6.524	388.863	16	27	DEC 11,1974	
6.541	388.863	16	28	DEC 11,1974	
6.558	388.863	16	29	DEC 11,1974	
6.575	388.863	16	30	DEC 11,1974	
6.592	388.886	16	32	DEC 11,1974	
6.609	388.886	16	33	DEC 11,1974	
6.625	388.886	16	34	DEC 11,1974	
6.642	388.933	16	35	DEC 11,1974	
6.659	388.933	16	36	DEC 11,1974	
6.676	388.886	16	37	DEC 11,1974	
6.693	388.933	16	38	DEC 11,1974	
6.710	388.863	16	39	DEC 11,1974	
6.727	388.886	16	40	DEC 11,1974	

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6,743	388,909	16	41	DEC 11,1974	
6,760	388,909	16	42	DEC 11,1974	
6,777	388,956	16	43	DEC 11,1974	
6,794	388,956	16	44	DEC 11,1974	
6,811	388,956	16	45	DEC 11,1974	
6,828	388,956	16	46	DEC 11,1974	
6,845	388,956	16	47	DEC 11,1974	
6,861	388,956	16	48	DEC 11,1974	
6,878	388,956	16	49	DEC 11,1974	
6,895	388,956	16	50	DEC 11,1974	
6,912	388,956	16	51	DEC 11,1974	
6,929	388,979	16	52	DEC 11,1974	
6,946	388,956	16	53	DEC 11,1974	
6,963	388,979	16	54	DEC 11,1974	
6,979	388,979	16	55	DEC 11,1974	
6,996	388,979	16	56	DEC 11,1974	
7,013	389,003	16	57	DEC 11,1974	
7,030	388,979	16	58	DEC 11,1974	
7,047	389,003	16	59	DEC 11,1974	
7,064	389,003	17	00	DEC 11,1974	
7,081	389,026	17	01	DEC 11,1974	
7,097	389,050	17	02	DEC 11,1974	
7,114	389,050	17	03	DEC 11,1974	
7,131	389,096	17	04	DEC 11,1974	
7,148	389,096	17	05	DEC 11,1974	
7,165	389,073	17	06	DEC 11,1974	
7,182	389,050	17	07	DEC 11,1974	
7,199	389,050	17	08	DEC 11,1974	
7,215	389,050	17	09	DEC 11,1974	
7,232	389,050	17	10	DEC 11,1974	
7,249	389,073	17	11	DEC 11,1974	
7,266	389,073	17	12	DEC 11,1974	
7,283	389,073	17	13	DEC 11,1974	
7,300	389,096	17	14	DEC 11,1974	
7,317	389,096	17	15	DEC 11,1974	
7,333	389,096	17	16	DEC 11,1974	
7,350	389,096	17	17	DEC 11,1974	
7,367	389,120	17	18	DEC 11,1974	
7,384	389,120	17	19	DEC 11,1974	
7,401	389,120	17	20	DEC 11,1974	

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DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
7.418	389.120	17	21	DEC 11,1974	
7.435	389.120	17	22	DEC 11,1974	
7.451	389.120	17	23	DEC 11,1974	
7.468	389.143	17	24	DEC 11,1974	
7.485	389.143	17	25	DEC 11,1974	
7.502	389.143	17	26	DEC 11,1974	
7.519	389.143	17	27	DEC 11,1974	
7.536	389.166	17	28	DEC 11,1974	
7.553	389.120	17	29	DEC 11,1974	
7.569	389.143	17	30	DEC 11,1974	
7.586	389.166	17	31	DEC 11,1974	END 12 GPM PRODUCTION
7.603	389.166	17	32	DEC 11,1974	
7.620	389.166	17	33	DEC 11,1974	
7.637	389.190	17	34	DEC 11,1974	
7.654	389.190	17	35	DEC 11,1974	
7.671	389.213	17	36	DEC 11,1974	
7.687	389.190	17	37	DEC 11,1974	
7.704	389.190	17	38	DEC 11,1974	
7.721	389.213	17	39	DEC 11,1974	
7.738	389.213	17	40	DEC 11,1974	
7.755	389.190	17	41	DEC 11,1974	
7.772	389.213	17	42	DEC 11,1974	
7.789	389.237	17	43	DEC 11,1974	
7.805	389.213	17	44	DEC 11,1974	
7.822	389.213	17	45	DEC 11,1974	
7.839	389.237	17	46	DEC 11,1974	
7.856	389.213	17	47	DEC 11,1974	
7.873	389.237	17	48	DEC 11,1974	
7.890	389.237	17	49	DEC 11,1974	
7.907	389.237	17	50	DEC 11,1974	
7.923	389.260	17	51	DEC 11,1974	
7.940	389.260	17	52	DEC 11,1974	
7.957	389.307	17	53	DEC 11,1974	
7.974	389.307	17	54	DEC 11,1974	
7.991	389.307	17	55	DEC 11,1974	
8.008	389.283	17	56	DEC 11,1974	
8.025	389.283	17	57	DEC 11,1974	
8.041	389.307	17	58	DEC 11,1974	
8.058	389.307	18	00	DEC 11,1974	
8.075	389.307	18	01	DEC 11,1974	

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DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
8.092	389.307	18	02	DEC 11,1974	
8.109	389.307	18	03	DEC 11,1974	
8.126	389.330	18	04	DEC 11,1974	
8.143	389.330	18	05	DEC 11,1974	
8.160	389.307	18	06	DEC 11,1974	
8.176	389.330	18	07	DEC 11,1974	
8.193	389.330	18	08	DEC 11,1974	
8.210	389.377	18	09	DEC 11,1974	
8.227	389.377	18	10	DEC 11,1974	
8.244	389.330	18	11	DEC 11,1974	
8.261	389.400	18	12	DEC 11,1974	
8.278	389.330	18	13	DEC 11,1974	
8.294	389.330	18	14	DEC 11,1974	
8.311	389.377	18	15	DEC 11,1974	
8.328	389.424	18	16	DEC 11,1974	
8.345	389.400	18	17	DEC 11,1974	
8.362	389.400	18	18	DEC 11,1974	
8.379	389.377	18	19	DEC 11,1974	
8.396	389.400	18	20	DEC 11,1974	
8.412	389.400	18	21	DEC 11,1974	
8.429	389.377	18	22	DEC 11,1974	
8.446	389.400	18	23	DEC 11,1974	
8.463	389.400	18	24	DEC 11,1974	
8.480	389.424	18	25	DEC 11,1974	
8.497	389.400	18	26	DEC 11,1974	
8.514	389.424	18	27	DEC 11,1974	
8.530	389.447	18	28	DEC 11,1974	
8.547	389.447	18	29	DEC 11,1974	
8.564	389.447	18	30	DEC 11,1974	
8.581	389.447	18	31	DEC 11,1974	
8.598	389.470	18	32	DEC 11,1974	
8.615	389.447	18	33	DEC 11,1974	
8.632	389.447	18	34	DEC 11,1974	
8.648	389.424	18	35	DEC 11,1974	
8.665	389.470	18	36	DEC 11,1974	
8.682	389.470	18	37	DEC 11,1974	
8.699	389.494	18	38	DEC 11,1974	
8.716	389.470	18	39	DEC 11,1974	
8.733	389.470	18	40	DEC 11,1974	
8.750	389.494	18	41	DEC 11,1974	

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DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
8.766	389.517	18	42	DEC 11,1974	
8.783	389.470	18	43	DEC 11,1974	
8.800	389.494	18	44	DEC 11,1974	
8.817	389.517	18	45	DEC 11,1974	
8.834	389.494	18	46	DEC 11,1974	
8.851	389.517	18	47	DEC 11,1974	
8.868	389.494	18	48	DEC 11,1974	
8.884	389.517	18	49	DEC 11,1974	
8.901	389.540	18	50	DEC 11,1974	
8.918	389.517	18	51	DEC 11,1974	
8.935	389.540	18	52	DEC 11,1974	
8.952	389.517	18	53	DEC 11,1974	
8.969	389.540	18	54	DEC 11,1974	
8.986	389.540	18	55	DEC 11,1974	
9.002	389.540	18	56	DEC 11,1974	
9.019	389.540	18	57	DEC 11,1974	
9.036	389.517	18	58	DEC 11,1974	
9.053	389.517	18	59	DEC 11,1974	
9.070	389.540	19	00	DEC 11,1974	
9.087	389.564	19	01	DEC 11,1974	
9.104	389.587	19	02	DEC 11,1974	
9.120	389.587	19	03	DEC 11,1974	
9.137	389.564	19	04	DEC 11,1974	
9.154	389.564	19	05	DEC 11,1974	
9.171	389.587	19	06	DEC 11,1974	
9.188	389.587	19	07	DEC 11,1974	
9.205	389.587	19	08	DEC 11,1974	
9.222	389.634	19	09	DEC 11,1974	
9.238	389.611	19	10	DEC 11,1974	
9.255	389.587	19	11	DEC 11,1974	
9.272	389.611	19	12	DEC 11,1974	
9.289	389.611	19	13	DEC 11,1974	
9.306	389.611	19	14	DEC 11,1974	
9.323	389.611	19	15	DEC 11,1974	
9.340	389.611	19	16	DEC 11,1974	
9.356	389.634	19	17	DEC 11,1974	
9.373	389.611	19	18	DEC 11,1974	
9.390	389.611	19	19	DEC 11,1974	
9.407	389.634	19	20	DEC 11,1974	
9.424	389.634	19	21	DEC 11,1974	

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9.441	389.634	19	22	DEC 11,1974	
9.458	389.681	19	23	DEC 11,1974	
9.474	389.657	19	24	DEC 11,1974	
9.491	389.681	19	25	DEC 11,1974	
9.508	389.634	19	26	DEC 11,1974	
9.525	389.657	19	28	DEC 11,1974	
9.542	389.681	19	29	DEC 11,1974	
9.559	389.657	19	30	DEC 11,1974	
9.576	389.657	19	31	DEC 11,1974	
9.592	389.657	19	32	DEC 11,1974	
9.609	389.681	19	33	DEC 11,1974	
9.626	389.681	19	34	DEC 11,1974	
9.643	389.681	19	35	DEC 11,1974	
9.660	389.704	19	36	DEC 11,1974	
9.677	389.704	19	37	DEC 11,1974	
9.694	389.681	19	38	DEC 11,1974	
9.710	389.704	19	39	DEC 11,1974	
9.727	389.727	19	40	DEC 11,1974	
9.744	389.727	19	41	DEC 11,1974	
9.761	389.751	19	42	DEC 11,1974	
9.778	389.727	19	43	DEC 11,1974	
9.795	389.727	19	44	DEC 11,1974	
9.812	389.727	19	45	DEC 11,1974	
9.828	389.727	19	46	DEC 11,1974	
9.845	389.751	19	47	DEC 11,1974	
9.862	389.727	19	48	DEC 11,1974	
9.879	389.751	19	49	DEC 11,1974	
9.896	389.727	19	50	DEC 11,1974	
9.913	389.985	19	51	DEC 11,1974	20 G/M ANNULUS
9.930	390.756	19	52	DEC 11,1974	
9.947	390.850	19	53	DEC 11,1974	
9.963	390.896	19	54	DEC 11,1974	
9.980	390.920	19	55	DEC 11,1974	
9.997	390.943	19	56	DEC 11,1974	
10.014	391.060	19	57	DEC 11,1974	
10.031	391.037	19	58	DEC 11,1974	
10.048	391.060	19	59	DEC 11,1974	
10.065	391.083	20	00	DEC 11,1974	
10.081	391.130	20	01	DEC 11,1974	
10.098	391.153	20	02	DEC 11,1974	

JOB NUMBER
SPG 11215-2

DATE OF JOB
DECEMBER 11, 1974

GAUGE/RUN NUMBER
88 RUN NO. 2 DST NO. 2

DATE OF RUN
JANUARY 15, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	TIME MIN	DATE	COMMENTS
10.115	391.153	20	03	DEC 11,1974	
10.132	391.200	20	04	DEC 11,1974	
10.149	391.177	20	05	DEC 11,1974	
10.166	391.200	20	06	DEC 11,1974	
10.183	391.247	20	07	DEC 11,1974	
10.199	391.247	20	08	DEC 11,1974	
10.216	391.270	20	09	DEC 11,1974	
10.233	391.270	20	10	DEC 11,1974	
10.250	391.317	20	11	DEC 11,1974	
10.267	392.579	20	12	DEC 11,1974	
10.284	392.205	20	13	DEC 11,1974	40 G/M ANNULUS
10.301	392.533	20	14	DEC 11,1974	
10.317	392.650	20	15	DEC 11,1974	
10.334	392.696	20	16	DEC 11,1974	
10.351	392.743	20	17	DEC 11,1974	
10.368	392.766	20	18	DEC 11,1974	
10.385	392.790	20	19	DEC 11,1974	
10.402	392.837	20	20	DEC 11,1974	
10.419	392.907	20	21	DEC 11,1974	
10.435	392.883	20	22	DEC 11,1974	
10.452	392.930	20	23	DEC 11,1974	
10.469	392.953	20	24	DEC 11,1974	
10.486	392.953	20	25	DEC 11,1974	
10.503	393.000	20	26	DEC 11,1974	
10.520	393.000	20	27	DEC 11,1974	
10.537	393.047	20	28	DEC 11,1974	
10.553	393.024	20	29	DEC 11,1974	
10.570	393.117	20	30	DEC 11,1974	
10.587	393.094	20	31	DEC 11,1974	
10.604	393.117	20	32	DEC 11,1974	
10.621	393.421	20	33	DEC 11,1974	60 G/M ANNULUS
10.638	393.491	20	34	DEC 11,1974	
10.655	393.491	20	35	DEC 11,1974	
10.671	393.514	20	36	DEC 11,1974	
10.688	393.514	20	37	DEC 11,1974	
10.705	393.538	20	38	DEC 11,1974	
10.722	393.561	20	39	DEC 11,1974	
10.739	393.585	20	40	DEC 11,1974	
10.756	393.585	20	41	DEC 11,1974	
10.773	393.608	20	42	DEC 11,1974	

JOB NUMBER
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DATE OF JOB
DECEMBER 11, 1974

GAUGE/RUN NUMBER
88 RUN NO. 2 DST NO. 2

DATE OF RUN
JANUARY 15, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
10.789	393.608	20	43	DEC 11,1974	
10.806	393.655	20	44	DEC 11,1974	
10.823	393.608	20	45	DEC 11,1974	
10.840	393.608	20	46	DEC 11,1974	
10.857	393.655	20	47	DEC 11,1974	
10.874	393.631	20	48	DEC 11,1974	
10.891	393.631	20	49	DEC 11,1974	
10.907	393.631	20	50	DEC 11,1974	
10.924	393.655	20	51	DEC 11,1974	
10.941	393.701	20	52	DEC 11,1974	
10.958	391.457	20	53	DEC 11,1974	DECLINE
10.975	391.247	20	54	DEC 11,1974	
10.992	391.083	20	56	DEC 11,1974	
11.009	390.990	20	57	DEC 11,1974	
11.025	390.896	20	58	DEC 11,1974	
11.042	390.826	20	59	DEC 11,1974	
11.059	390.779	21	00	DEC 11,1974	
11.076	390.779	21	01	DEC 11,1974	
11.093	390.733	21	02	DEC 11,1974	
11.110	390.709	21	03	DEC 11,1974	
11.127	390.709	21	04	DEC 11,1974	
11.143	390.709	21	05	DEC 11,1974	
11.160	390.639	21	06	DEC 11,1974	
11.177	390.639	21	07	DEC 11,1974	
11.194	390.639	21	08	DEC 11,1974	
11.211	390.639	21	09	DEC 11,1974	
11.228	390.592	21	10	DEC 11,1974	
11.245	390.569	21	11	DEC 11,1974	
11.261	390.592	21	12	DEC 11,1974	
11.278	390.592	21	13	DEC 11,1974	
11.295	390.569	21	14	DEC 11,1974	
11.312	390.546	21	15	DEC 11,1974	
11.329	390.569	21	16	DEC 11,1974	
11.346	390.546	21	17	DEC 11,1974	
11.363	390.569	21	18	DEC 11,1974	
11.379	390.522	21	19	DEC 11,1974	
11.396	390.569	21	20	DEC 11,1974	
11.413	390.569	21	21	DEC 11,1974	
11.430	390.522	21	22	DEC 11,1974	
11.447	390.522	21	23	DEC 11,1974	

JOB NUMBER
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DATE OF JOB
DECEMBER 11, 1974

GAUGE/RUN NUMBER
88 RUN NO. 2 DST NO. 2

DATE OF RUN
JANUARY 15, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
11.464	390.522	21	24	DEC 11,1974	
11.481	390.569	21	25	DEC 11,1974	
11.497	390.522	21	26	DEC 11,1974	
11.514	390.546	21	27	DEC 11,1974	
11.531	390.546	21	28	DEC 11,1974	
11.548	390.546	21	29	DEC 11,1974	
11.565	390.546	21	30	DEC 11,1974	
11.582	390.522	21	31	DEC 11,1974	
11.599	390.522	21	32	DEC 11,1974	
11.615	390.546	21	33	DEC 11,1974	
11.632	390.499	21	34	DEC 11,1974	2 G/M INSIDE
11.649	390.522	21	35	DEC 11,1974	DRILL PIPE
11.666	390.499	21	36	DEC 11,1974	
11.683	390.522	21	37	DEC 11,1974	
11.700	390.522	21	38	DEC 11,1974	
11.717	390.499	21	39	DEC 11,1974	
11.734	390.522	21	40	DEC 11,1974	
11.750	390.546	21	41	DEC 11,1974	
11.767	390.522	21	42	DEC 11,1974	
11.784	390.522	21	43	DEC 11,1974	
11.801	390.522	21	44	DEC 11,1974	
11.818	390.522	21	45	DEC 11,1974	
11.835	390.522	21	46	DEC 11,1974	
11.852	390.499	21	47	DEC 11,1974	
11.868	390.499	21	48	DEC 11,1974	
11.885	390.522	21	49	DEC 11,1974	
11.902	390.522	21	50	DEC 11,1974	
11.919	390.546	21	51	DEC 11,1974	
11.936	390.522	21	52	DEC 11,1974	
11.953	390.546	21	53	DEC 11,1974	
11.970	390.499	21	54	DEC 11,1974	5 G/M INSIDE
11.986	390.546	21	55	DEC 11,1974	DRILL PIPE
12.003	390.522	21	56	DEC 11,1974	
12.020	390.522	21	57	DEC 11,1974	
12.037	390.546	21	58	DEC 11,1974	
12.054	390.546	21	59	DEC 11,1974	
12.071	390.522	22	00	DEC 11,1974	
12.088	390.522	22	01	DEC 11,1974	
12.104	390.522	22	02	DEC 11,1974	
12.121	390.592	22	03	DEC 11,1974	

JOB NUMBER
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DATE OF JOB
DECEMBER 11, 1974

GAUGE/RUN NUMBER
88 RUN NO. 2 DST NO. 2

DATE OF RUN
JANUARY 15, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
12.138	390.546	22	04	DEC 11,1974	
12.155	390.522	22	05	DEC 11,1974	
12.172	390.546	22	06	DEC 11,1974	
12.189	390.546	22	07	DEC 11,1974	
12.206	390.546	22	08	DEC 11,1974	
12.222	390.546	22	09	DEC 11,1974	
12.239	390.522	22	10	DEC 11,1974	
12.256	390.569	22	11	DEC 11,1974	
12.273	390.569	22	12	DEC 11,1974	
12.290	390.546	22	13	DEC 11,1974	
12.307	390.569	22	14	DEC 11,1974	10 G/M INSIDE DRILL PIPE
12.324	390.569	22	15	DEC 11,1974	
12.340	390.592	22	16	DEC 11,1974	
12.357	390.592	22	17	DEC 11,1974	
12.374	390.616	22	18	DEC 11,1974	
12.391	390.639	22	19	DEC 11,1974	
12.408	390.639	22	20	DEC 11,1974	
12.425	390.639	22	21	DEC 11,1974	
12.442	390.639	22	22	DEC 11,1974	
12.458	390.639	22	24	DEC 11,1974	
12.475	390.639	22	25	DEC 11,1974	
12.492	390.616	22	26	DEC 11,1974	
12.509	390.639	22	27	DEC 11,1974	
12.526	390.663	22	28	DEC 11,1974	
12.543	390.663	22	29	DEC 11,1974	
12.560	390.663	22	30	DEC 11,1974	
12.576	390.686	22	31	DEC 11,1974	
12.593	390.709	22	32	DEC 11,1974	
12.610	390.639	22	33	DEC 11,1974	
12.627	390.616	22	34	DEC 11,1974	20 G/M INSIDE DRILL PIPE
12.644	390.663	22	35	DEC 11,1974	
12.661	390.686	22	36	DEC 11,1974	
12.678	390.663	22	37	DEC 11,1974	
12.694	390.663	22	38	DEC 11,1974	
12.711	390.663	22	39	DEC 11,1974	
12.728	390.686	22	40	DEC 11,1974	
12.745	390.663	22	41	DEC 11,1974	
12.762	390.663	22	42	DEC 11,1974	
12.779	390.663	22	43	DEC 11,1974	
12.796	390.686	22	44	DEC 11,1974	

JOB NUMBER
SPG 11215-2

DATE OF JOB
DECEMBER 11, 1974

GAUGE/RUN NUMBER
88   RUN NO. 2 DST NO. 2

DATE OF RUN
JANUARY 15, 1975

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
12.812	390.686	22	45	DEC 11,1974	
12.829	390.663	22	46	DEC 11,1974	
12.846	390.686	22	47	DEC 11,1974	
12.863	390.686	22	48	DEC 11,1974	
12.880	390.639	22	49	DEC 11,1974	
12.897	390.686	22	50	DEC 11,1974	
12.914	390.686	22	51	DEC 11,1974	
12.930	390.686	22	52	DEC 11,1974	
12.947	390.709	22	53	DEC 11,1974	
12.964	390.639	22	54	DEC 11,1974	
12.981	390.639	22	55	DEC 11,1974	
12.998	390.663	22	56	DEC 11,1974	
13.015	390.709	22	57	DEC 11,1974	
13.032	390.686	22	58	DEC 11,1974	
13.048	390.686	22	59	DEC 11,1974	
13.065	390.686	23	00	DEC 11,1974	
13.082	390.709	23	01	DEC 11,1974	
13.099	390.686	23	02	DEC 11,1974	
13.116	390.686	23	03	DEC 11,1974	
13.133	390.686	23	04	DEC 11,1974	
13.150	390.733	23	05	DEC 11,1974	
13.166	390.686	23	06	DEC 11,1974	
13.183	391.060	23	07	DEC 11,1974	END TEST

783 POINTS REPORTED THIS RUN

Drill Stem Tests - SG-21

DRILL STEM TESTS

WELL SG-21

JOHNSTON

Schlumberger

technical report

RECEIVED

JAN 6 1975

A. J. ROGERS

II B-2020

F.R. #09080 C

COMPANY ATLANTIC-RICHFIELD COMPANY **WELL** FEDERAL S. G. #21 **TEST NO.** 1 **COUNTY** RIO BLANCO **STATE** COLORADO

JOHNSTON
...found a better way

SURFACE INFORMATION

[illegible]iption (Rate of Flow)	Time	Pressure (P.S.I.G.)	Surface Choke
Opened Tool	1145	-	-
CLOSED FOR INITIAL SHUT-IN	1151	-	-
FINISHED SHUT-IN	1220	-	-
RE-OPENED TOOL	1225	-	-
JETTING DOWN ANNULUS			
21 GAL/MIN. FROM	1842	-	-
TO	1902	-	-
39 GAL/MIN. FROM	1902	-	-
TO	1922	-	-
61 GAL/MIN. FROM	1922	-	-
TO	1942	-	-
CLOSED TOOL	2200	-	-
PULLED PACKER LOOSE	2203	-	-

Cushion Type	Amount	Pressure	Bottom Choke
	-		Size 3/4"

MUD DATA

Mud Type WATER - FOAM Wt. -
Viscosity - Water Loss - C.C.
Resist: of Mud - @ - °F; of Filtrate - @ - °F
Chloride Content - PPM

EQUIPMENT & HOLE DATA

Type Test M.F.E. OPEN HOLE
Formation Tested GREEN RIVER
Elevation 6811 Ft.
Net Productive Interval 36 Ft.
Estimated Porosity - %
All Depths Measured From GROUND LEVEL
Total Depth 1036 Ft.
Main Hole/Casing Size 6 3/4"
Rat Hole/Liner Size -
Drill Collar Length - I.D. -
Drill Pipe Length - I.D. -
Packer Depth(s) 996' & 1000' Ft.

MULTI-FLOW EVALUATOR FLUID SAMPLE DATA

Sampler Pressure ______ P.S.I.G. at Surface
Recovery: Cu. Ft. Gas ______
cc. Oil ______
cc. Water ______
cc. Mud ______
Tot. Liquid cc. ______
Gravity ______ °API @ ______ °F.
Gas/Oil Ratio ______ cu. ft./bbl.

	RESISTIVITY	CHLORIDE CONTENT
Recovery Water	@ °F.	ppm
Recovery Mud	@ °F.	
Recovery Mud Filtrate	@ °F.	ppm
Mud Pit Sample	@ °F.	
Mud Pit Sample Filtrate	@ °F.	ppm

RECOVERY DESCRIPTION	FEET	BARRELS	% OIL	% WATER	% OTHERS	API GRAVITY	RESISTIVITY	CHL. PPM
-						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	

Remarks:

Address 1500 SECURITY LIFE BUILDING, 1600 GLENARM; DENVER, COLORADO 80202

C[illegible]ny ATLANTIC-RICHFIELD COMPANY Field SORGHUM GULCH
Well FEDERAL S. G. #21 Location 210.6 FSL 1528.6 FEL SEC. T13-35-97W
Test Interval 1000' TO 1036' Test # 1 Date 12-20-74
County RIO BLANCO State COLORADO II B-2021
Technician BURNS (VERNAL) Test Approved By MR. D. B. TAIT

Field Report No. 09080 C
No. Reports Requested 14 (13)

JOHNSTON
...found a better way

PRESSURE DATA

Instrument No.	J-405		
Capacity (P.S.I.G.)	2800		
Instrument Depth	979'		
Instrument Opening	INSIDE		
Pressure Gradient P.S.I./Ft.			
Well Temperature °F.	103		
Initial Hydrostatic Mud A			
Initial Shut-in B			
Initial Flow C			
Final Flow D			
Final Shut-in E			
Final Hydrostatic Mud F			

Field Report No. 09080 C

TIME DATA

Time Given	Time Computed
____ Mins.	____ Mins.
____ Mins.	____ Mins.
____ Mins.	____ Mins.
____ Mins.	____ Mins.
____ Mins.	____ Mins.
____ Mins.	____ Mins.

Remarks:

*Shut in pressure did not reach static reservoir pressure.

Clock Travel 0.010258 inches per min.

PRESSURE INCREMENTS

Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$
	359.4		30	355.5		61	323.9	
2	365.6		31	356.0		62	325.6	
3 0	73.8		32	356.0		63	327.3	
4 1	118.3		33	356.6		64	329.0	
2	225.3		34	356.6		65	330.1	
3	298.6		35	357.2		66	331.8	
4	331.2		5 36	357.2		67	332.9	
5	331.2		37	362.8		68	334.1	
6	333.5		38	362.8		69	335.2	
7	335.8		39	362.8		70	336.3	
8	338.0		40	362.8		71	337.4	
9	339.7		6 41	362.8		72	338.6	
10	341.4		7 41	143.6		73	339.1	
11	342.5		42	167.3		74	340.3	
12	344.2		43	192.6		75	340.8	
13	345.3		44	212.4		80	344.8	
14	346.5		45	229.3		85	348.1	
15	347.6		46	245.0		90	351.0	
16	348.7		47	259.1		95	352.7	
17	349.3		48	270.4		100	354.3	
18	349.8		49	280.0		105	355.5	
19	351.0		50	287.9		110	356.6	
20	351.5		51	294.6		115	357.7	
21	352.1		52	299.7		120	358.3	
22	352.7		53	304.2		125	358.9	
23	353.2		54	307.6		130	358.9	
24	353.2		55	311.0		135	358.9	
25	353.8		56	313.2		140	359.4	
26	354.3		57	316.0		145	362.8	
27	354.9		58	318.3		150	362.8	
28	354.9		59	320.5		155	362.8	
29	355.5		60	322.2		160	362.8	

II B-2022

PRESSURE DATA

Instrument No.		J-405		
Capacity (P.S.I.G.)				
Instrument Depth				
Instrument Opening				
Pressure Gradient P.S.I./Ft.				
Well Temperature °F.				
Initial Hydrostatic Mud	A			
Initial Shut-in	B			
Initial Flow	C			
Final Flow	D			
Final Shut-in	E			
Final Hydrostatic Mud	F			

Field Report No. 09080 C

TIME DATA

Time Given	Time Computed
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.

Remarks:

**Shut in pressure did not reach static reservoir pressure.*

Clock Travel 0.010258 inches per min.

PRESSURE INCREMENTS

Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$
165	362.8		272	258.6		334	271.0	
170	362.8		274	254.6		336	277.2	
175	363.4		276	251.8		338	283.4	
180	363.4		278	250.1		340	289.0	
185	363.9		280	247.9		342	294.6	
190	365.0		282	246.2		344	299.7	
195	365.0		284	245.0		346	304.2	
200	368.4		286	243.9		348	306.5	
205	368.4		288	242.8		350	311.5	
210	368.4		290	242.2		352	315.5	
215	368.4		292	241.1		354	318.3	
220	368.4		294	240.5		356	321.7	
225	368.4		296	240.0		358	321.7	
230	368.4		298	239.4		360	325.0	
235	369.0		300	238.8		362	327.9	
240	369.0		302	238.8		364	330.1	
245	369.0		304	238.3		366	332.4	
8 247	369.0		306	238.3		368	334.6	
9 248	387.6		308	237.7		370	336.3	
10 250	236.0		310	237.2		372	338.0	
252	278.8		312	237.2		374	339.7	
254	301.9		314	237.2		376	340.8	
256	316.0		316	236.6		378	341.9	
258	323.9		318	236.6		380	343.6	
260	329.6		320	236.6		382	344.8	
262	349.3		322	236.6		384	345.3	
12 264	375.8		16 324	236.6		386	346.5	
13 265	287.9		17 325	198.3	II D-2025	388	347.6	
266	293.5		326	215.2		390	348.7	
14 268	290.1		328	240.0		392	349.3	
15 269	262.5		330	254.1		394	350.4	
270	262.5		332	263.6		396	351.0	

PRESSURE DATA

Instrument No.		J-405		
Capacity (P.S.I.G.)				
Instrument Depth				
Instrument Opening				
Pressure Gradient P.S.I./Ft.				
Well Temperature °F.				
Initial Hydrostatic Mud	A			
Initial Shut-in	B			
Initial Flow	C			
Final Flow	D			
Final Shut-in	E			
Final Hydrostatic Mud	F			

Field Report No. 09080 C

TIME DATA

Time Given	Time Computed
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.

Remarks:

**Shut in pressure did not reach static reservoir pressure.*

Clock Travel 0.010258 inches per min.

PRESSURE INCREMENTS

Point Minutes	Pressure	$\frac{T + \Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T + \Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T + \Delta t}{\Delta t}$
398	351.5		462	358.9		524	368.4	
400	352.1		464	359.4		526	369.0	
402	352.7		466	359.4		528	369.6	
404	353.2		468	359.4		530	370.1	
406	353.2		470	359.4		532	370.7	
408	353.8		472	359.4		534	371.2	
410	354.3		474	360.0		536	373.5	
412	354.9		476	360.0		538	374.6	
414	354.9		478	360.0		540	375.8	
416	354.9		480	360.0		542	376.3	
418	355.5		482	360.0		544	377.4	
420	355.5		484	360.0		546	378.0	
422	356.0		486	360.0		548	378.6	
424	356.0		488	360.0		550	379.1	
426	356.6		490	360.0		552	380.3	
428	356.6		492	360.0		19 554	380.3	
430	357.2		494	360.0		556	392.7	
432	357.2		496	360.0		558	400.0	
434	357.2		498	360.0		560	405.6	
436	357.7		500	360.0		562	410.1	
438	357.7		502	360.0		564	412.9	
440	357.7		504	360.0		566	414.1	
442	358.3		506	360.0		568	414.6	
444	358.3		508	360.0		570	414.6	
446	358.3		510	360.0		572	414.6	
448	358.3		512	360.0		574	414.6	
450	358.9		514	360.0		576	414.6	
452	358.9		18 515	360.0	II B-2024	20 577	414.6	
454	358.9		516	363.4		578	410.1	
456	358.9		518	363.9		580	406.2	
458	358.9		520	366.2		582	402.2	
460	358.9		522	367.3		584	398.9	

PRESSURE DATA

Instrument No.	J-405			
Capacity (P.S.I.G.)				
Instrument Depth				
Instrument Opening				
Pressure Gradient P.S.I./Ft.				
Well Temperature °F.				
Initial Hydrostatic Mud A				
Initial Shut-in B				
Initial Flow C				
Final Flow D				
Final Shut-in E				
Final Hydrostatic Mud F				

Field Report No. 09080 C

TIME DATA

Time Given	Time Computed
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.

Remarks:

**Shut in pressure did not reach static reservoir pressure.*

Clock Travel 0.010258 inches per min.

PRESSURE INCREMENTS

Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$
586	395.5							
588	393.2							
590	391.0							
592	388.7							
594	386.5							
596	385.3							
598	383.6							
600	382.0							
602	380.8							
604	379.7							
606	379.1							
608	378.0							
610	376.9							
21 611	371.2							
612	371.2							
614	371.2							
616	371.2							
22 618	371.2							
23	365.6							

PRESSURE DATA

Instrument No.	4709 N		
Capacity (P.S.I.G.)	2800		
Instrument Depth	1008'		
Instrument Opening	OUTSIDE		
Pressure Gradient P.S.I./Ft.			
Well Temperature °F.	103		
Initial Hydrostatic Mud A			
Initial Shut-in B			
Initial Flow C			
Final Flow D			
Final Shut-in E			
Final Hydrostatic Mud F			

Field Report No. 09080 C

TIME DATA

Time Given	Time Computed
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.

Remarks:

*Shut in pressure did not reach static reservoir pressure.

Clock Travel 0.003415 inches per min.

PRESSURE INCREMENTS

Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$
1	376.7		30	372.4		61	338.7	
2	379.5		31	372.4		62	340.1	
3 0	92.3		32	373.8		63	341.5	
4 1	141.6		33	373.8		64	342.9	
2	207.8		34	373.8		65	344.3	
3	330.2		35	373.8		66	347.1	
4	351.3		5 36	373.8		67	347.1	
5	352.7		37	376.7		68	348.5	
6	354.1		38	376.7		69	349.9	
7	355.5		39	375.2		70	351.3	
8	357.0		40	375.2		71	352.7	
9	357.0		6 41	375.2		72	352.7	
10	359.8		7 41	159.9		73	354.1	
11	361.2		42	217.6		74	355.5	
12	361.2		43	219.0		75	357.0	
13	362.6		44	238.7		80	361.2	
14	364.0		45	251.4		85	364.0	
15	364.0		46	265.5		90	365.4	
16	365.4		47	278.1		95	368.2	
17	366.8		48	286.6		100	369.6	
18	366.8		49	296.4		105	371.0	
19	368.2		50	303.5		110	371.0	
20	368.2		51	310.5		115	372.4	
21	368.2		52	314.7		120	373.8	
22	369.6		53	318.9		125	373.8	
23	369.6		54	323.2		130	375.2	
24	369.6		55	326.0		135	375.2	
25	371.0		56	328.8	II B-2026	140	375.2	
26	371.0		57	331.6		145	376.7	
27	371.0		58	333.0		150	376.7	
28	371.0		59	335.8		155	376.7	
29	372.4		60	337.2		160	376.7	

PRESSURE DATA

Instrument No.	4709 N		
Capacity (P.S.I.G.)			
Instrument Depth			
Instrument Opening			
Pressure Gradient P.S.I./Ft.			
Well Temperature °F.			
Initial Hydrostatic Mud A			
Initial Shut-in B			
Initial Flow C			
Final Flow D			
Final Shut-in E			
Final Hydrostatic Mud F			

Field Report No. 09080 C

TIME DATA

Time Given	Time Computed
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.

Remarks:

**Shut in pressure did not reach static reservoir pressure.*

Clock Travel 0.003415 inches per min.

PRESSURE INCREMENTS

Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$
165	376.7		272	271.1		334	282.4	
170	378.1		274	265.5		336	288.0	
175	378.1		276	262.6		338	295.0	
180	379.5		278	261.2		340	300.7	
185	379.5		280	258.4		342	304.9	
190	379.5		282	255.6		344	310.5	
195	379.5		284	254.2		346	313.3	
200	379.5		286	252.8		348	318.9	
205	379.5		288	252.8		350	321.8	
210	379.5		290	251.4		352	326.0	
215	379.5		292	251.4		354	328.8	
220	379.5		294	250.0		356	331.6	
225	379.5		296	248.6		358	335.8	
230	379.5		298	248.6		360	338.7	
235	379.5		300	248.6		362	341.5	
240	380.9		302	247.2		364	344.3	
245	380.9		304	247.2		366	345.7	
8 247	380.9		306	247.2		368	348.5	
9 248	402.0		308	245.8		370	349.9	
10 250	251.4		310	245.8		372	352.7	
252	286.6		312	245.8		374	354.1	
254	310.5		314	245.8		376	355.5	
256	327.4		316	245.8		378	357.0	
258	335.8		318	245.8		380	358.4	
11 260	342.9		320	245.8		382	359.8	
262	357.0		322	245.8		384	361.2	
12 264	386.5		16 324	245.8		386	361.2	
13 265	300.7		17 325	209.2	II B-2027	388	362.6	
266	306.3		326	227.5		390	364.0	
14 268	300.7		328	251.4		392	364.0	
15 269	273.9		330	264.1		394	365.4	
270	272.5		332	273.9		396	366.8	

PRESSURE DATA

Instrument No.	4709 N		
Capacity (P.S.I.G.)			
Instrument Depth			
Instrument Opening			
Pressure Gradient P.S.I./Ft.			
Well Temperature °F.			
Initial Hydrostatic Mud A			
Initial Shut-in B			
Initial Flow C			
Final Flow D			
Final Shut-in E			
Final Hydrostatic Mud F			

Field Report No. 09080 C

TIME DATA

Time Given	Time Computed
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.

Remarks:

**Shut in pressure did not reach static reservoir pressure.*

Clock Travel 0.003415 inches per min.

PRESSURE INCREMENTS

Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$
398	366.8		462	376.7		524	390.7	
400	368.2		464	376.7		526	392.1	
402	368.2		466	378.1		528	392.1	
404	368.2		468	378.1		530	393.5	
406	369.6		470	378.1		532	393.5	
408	369.6		472	378.1		534	393.5	
410	369.6		474	378.1		536	396.4	
412	371.0		476	378.1		538	397.8	
414	371.0		478	379.5		540	399.2	
416	371.0		480	379.5		542	400.6	
418	372.4		482	379.5		544	402.0	
420	372.4		484	379.5		546	402.0	
422	372.4		486	379.5		548	403.4	
424	373.8		488	379.5		550	403.4	
426	373.8		490	379.5		552	403.4	
428	373.8		492	379.5		19 554	404.8	
430	373.8		494	379.5		556	413.3	
432	373.8		496	379.5		558	421.7	
434	375.2		498	379.5		560	428.7	
436	375.2		500	379.5		562	434.4	
438	375.2		502	379.5		564	438.6	
440	375.2		504	379.5		566	440.0	
442	375.2		506	379.5		568	441.4	
444	375.2		508	379.5		570	441.4	
446	376.7		510	380.9		572	441.4	
448	376.7		512	380.9		574	441.4	
450	376.7		514	380.9		576	441.4	
452	376.7		18 515	380.9	II B-2028	20 577	442.8	
454	376.7		516	382.3		578	428.7	
456	376.7		518	385.1		580	424.5	
458	376.7		520	386.5		582	420.3	
460	376.7		522	389.3		584	416.1	

PRESSURE DATA

Instrument No.	4709 N		
Capacity (P.S.I.G.)			
Instrument Depth			
Instrument Opening			
Pressure Gradient P.S.I./Ft.			
Well Temperature °F.			
Initial Hydrostatic Mud A			
Initial Shut-in B			
Initial Flow C			
Final Flow D			
Final Shut-in E			
Final Hydrostatic Mud F			

Field Report No. 09080 C

TIME DATA

Time Given	Time Computed
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.

Remarks:

*Shut in pressure did not reach static reservoir pressure.

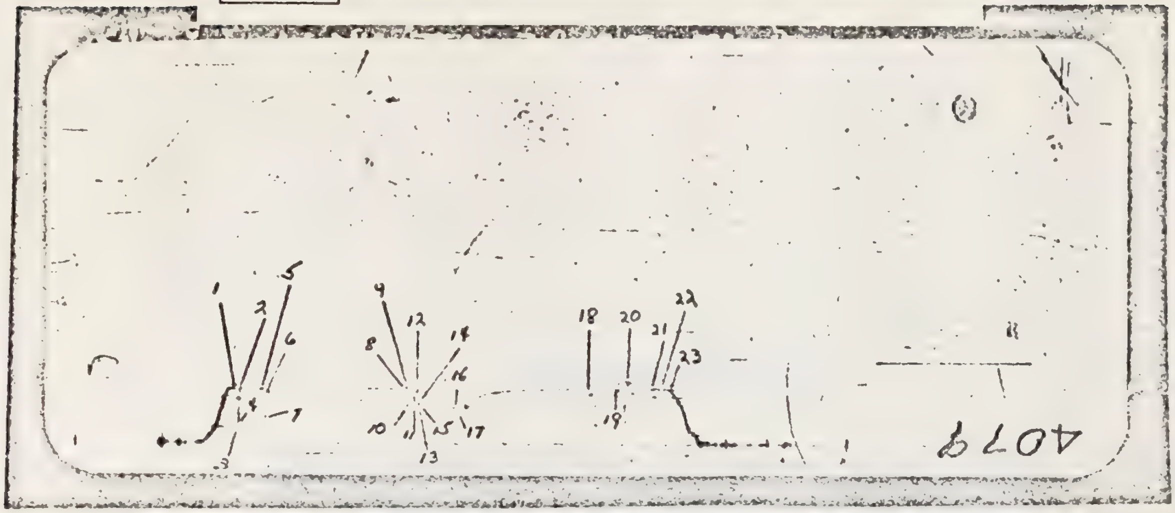
Clock Travel 0.003415 inches per min.

PRESSURE INCREMENTS

Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$
586	413.3							
588	410.4							
590	407.6							
592	406.2							
594	403.4							
596	402.0							
598	400.6							
600	399.2							
602	397.8							
604	396.4							
606	395.0							
608	393.5							
610	392.1							
21 611	392.1							
612	392.1							
614	392.1							
616	387.9							
22 618	385.1							
23	382.3							

JOHNSTON

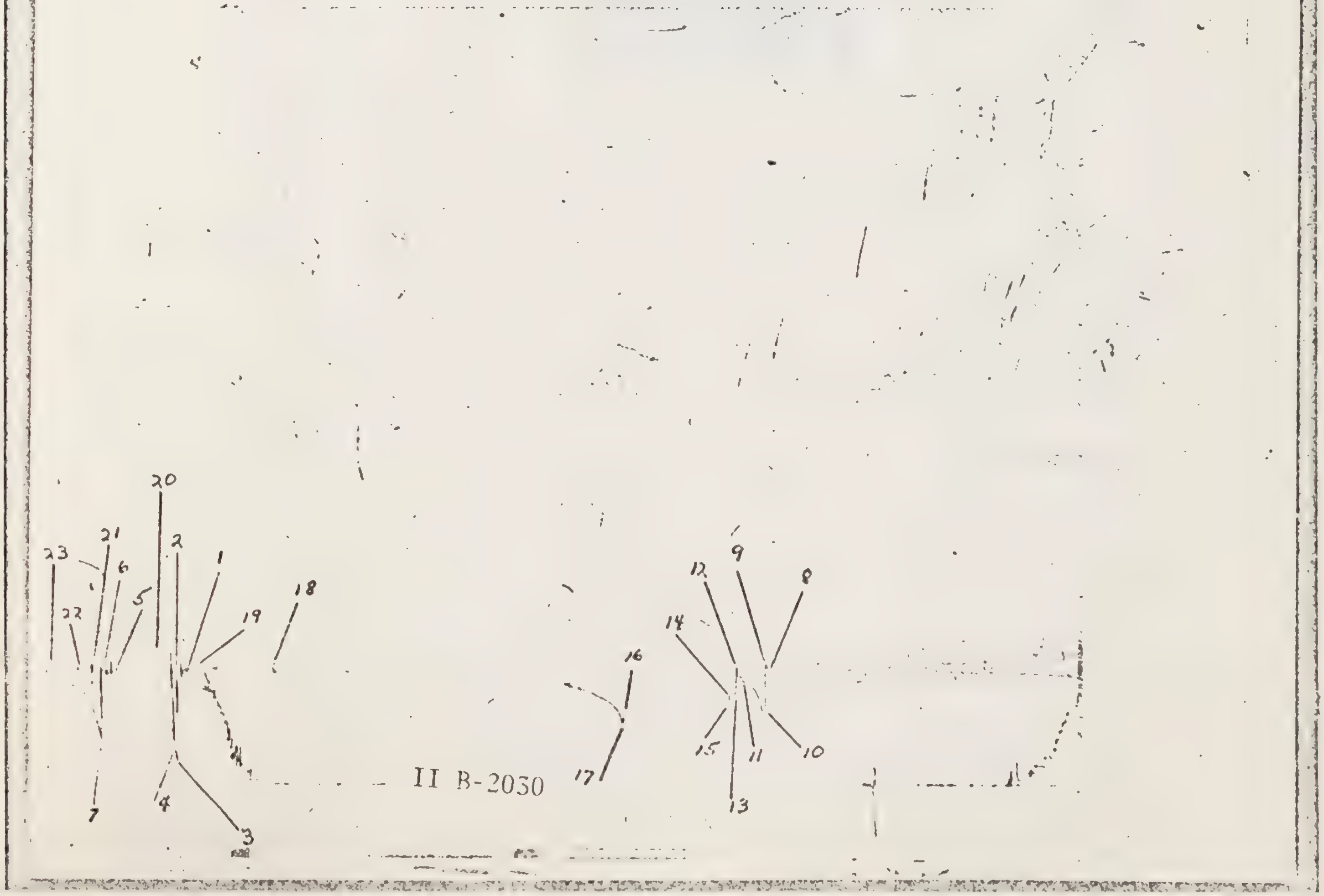
FIELD REPORT NO. 09080 C
RECORDER NO. 4709 N
CAPACITY 2800#
REPORTS REQUESTED 14+



405

JOHNSTON

FIELD REPORT NO. 09080 C
RECORDER NO. J-405
CAPACITY 2800#
REPORTS REQUESTED 14+



II B-2030

JOHNSTON
Schlumberger

technical report

RECEIVED
JAN 6 1975
A. L. ROGERS

II B-2031

COMPANY ATLANTIC-RICHFIELD COMPANY
WELL FEDERAL S. G. #21
TEST NO. 2
COUNTY RIO BLANCO
STATE COLORADO

F.R. #09082 C

JOHNSTON
...found a better way

SURFACE INFORMATION

Description (Rate of Flow)	Time	Pressure (P.S.I.G.)	Surface Choke
Opened Tool (12-21-74)	1726	-	-
(12-22-74)			
CLOSED TOOL	0119	-	-
PULLED PACKER LOOSE	0121	-	-

Cushion Type	Amount	Pressure	Bottom Choke
	-		Size 3/4"

MUD DATA

Mud Type WATER - FOAM Wt. -
Viscosity - Water Loss - C.C.
Resist: of Mud - @ - °F; of Filtrate - @ - °F
Chloride Content - PPM

EQUIPMENT & HOLE DATA

Type Test M.F.E. STRADDLE OPEN HOLE
Formation Tested GREEN RIVER
Elevation 6811 Ft.
Net Productive Interval - Ft.
Estimated Porosity - %
All Depths Measured From GROUND LEVEL
Total Depth 1036' Ft.
Main Hole/Casing Size 6 3/4"
Rat Hole/Liner Size -
Drill Collar Length - I.D. -
Drill Pipe Length - I.D. -
Packer Depth(s) 950' & 1000' Ft.

MULTI-FLOW EVALUATOR FLUID SAMPLE DATA

Sampler Pressure P.S.I.G. at Surface
Recovery: Cu. Ft. Gas
cc. Oil
cc. Water
cc. Mud
Tot. Liquid cc.
Gravity °API @ °F.
Gas/Oil Ratio cu. ft./bbl.

	RESISTIVITY	CHLORIDE CONTENT
Recovery Water	@ °F.	ppm
Recovery Mud	@ °F.	
Recovery Mud Filtrate	@ °F.	ppm
Mud Pit Sample	@ °F.	
Mud Pit Sample Filtrate	@ °F.	ppm

RECOVERY DESCRIPTION	FEET	BARRELS	% OIL	% WATER	% OTHERS	API GRAVITY	RESISTIVITY	CHL. PPM
-						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	
						@ °F.	@ °F.	

Remarks:

Address 1500 SECURITY LIFE BUILDING, 1600 GLENARM; DENVER, COLORADO 80202

Company ATLANTIC-RICHFIELD COMPANY Field SORGHUM GULCH
Well FEDERAL S. G. #21 Location -
Test Interval 950' TO 1000' Test # 2 II B-2032 Date 12-21-74
County RIO BLANCO State COLORADO
Technician BURNS (VERNAL) Test Approved By MR. D. B. TAIT

Field Report No. 09082 C
No. Reports Requested 14 (13x)

PRESSURE DATA

Instrument No.		J-405		
Capacity (P.S.I.G.)		2800		
Instrument Depth		933'		
Instrument Opening		INSIDE		
Pressure Gradient P.S.I./Ft.				
Well Temperature °F.		103		
Initial Hydrostatic Mud	A			
Initial Shut-in	B			
Initial Flow	C			
Final Flow	D			
Final Shut-in	E			
Final Hydrostatic Mud	F			

Field Report No. 09082 C

TIME DATA

Time Given	Time Computed
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.

Remarks:

**Shut in pressure did not reach static reservoir pressure.*

Clock Travel 0.010646 inches per min.

PRESSURE INCREMENTS

Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$
1	338.6		90	344.2		205	344.2	
2	347.0		95	344.8		210	344.2	
3 0	283.4		100	344.8		215	344.8	
1	295.8		105	344.8		220	344.8	
2	309.8		110	344.8		225	344.8	
3	319.4		115	345.3		230	344.8	
4	329.6		4 116	345.3		235	344.8	
5	335.8		5 117	351.5		240	344.8	
6	339.1		6 118	329.0		245	344.8	
7	340.3		120	329.0		250	344.8	
8	340.8		125	329.0		255	344.8	
9	341.4		130	329.0		260	344.8	
10	341.9		135	328.4		265	344.8	
11	341.9		140	328.4		270	344.8	
12	341.9		145	327.9		275	344.8	
13	341.9		150	327.9		280	345.3	
14	342.5		155	327.3		285	345.3	
15	342.5		160	327.3		290	345.3	
20	342.5		165	327.3		295	345.3	
25	343.1		170	327.3		300	345.3	
30	343.1		7 173	327.3		305	345.3	
35	343.1		8 174	313.2		310	345.3	
40	343.1		175	325.0		315	345.3	
45	343.1		176	332.9		320	345.3	
50	343.6		177	337.4		325	345.3	
55	343.6		178	340.3		330	345.3	
60	343.6		179	341.4		335	345.3	
65	343.6		180	341.4	II B-2033	340	345.3	
70	343.6		185	341.4		345	345.3	
75	344.2		190	341.9		350	345.3	
80	344.2		195	341.9		355	345.3	
85	344.2		200	342.5		360	345.3	

PRESSURE DATA

Instrument No.		J-405			
Capacity (P.S.I.G.)					Field Report No. 09082 C
Instrument Depth					
Instrument Opening					
Pressure Gradient P.S.I./Ft.					
Well Temperature °F.					
Initial Hydrostatic Mud	A				
Initial Shut-in	B				
Initial Flow	C				
Final Flow	D				
Final Shut-in	E				
Final Hydrostatic Mud	F				

TIME DATA

Time Given	Time Computed
____ Mins.	____ Mins.
____ Mins.	____ Mins.
____ Mins.	____ Mins.
____ Mins.	____ Mins.
____ Mins.	____ Mins.
____ Mins.	____ Mins.

Remarks:

**Shut in pressure did not reach static reservoir pressure.*

Clock Travel 0.010646 inches per min.

PRESSURE INCREMENTS

Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$
365	345.3		448	345.9				
370	345.9		450	345.9				
375	345.9		452	345.9				
380	345.9		454	345.9				
385	345.9		456	345.9				
390	345.9		458	345.9				
395	345.9		460	345.9				
400	345.9		462	345.9				
9 403	345.9		464	345.9				
404	349.3		12 466	345.9				
406	351.0		468	346.5				
408	351.5		470	346.5				
410	351.5		472	346.5				
412	351.5		474	346.5				
414	351.5		13 475	346.5				
416	351.5		14	340.3				
418	351.5							
420	351.5							
10 422	351.5							
424	354.9							
426	357.2							
428	358.3							
430	358.3							
432	358.3							
434	358.3							
436	358.3							
11 437	358.3							
438	353.2							
440	348.1							
442	346.5							
444	345.9							
446	345.9							

II B-2034

PRESSURE DATA

Instrument No.	J-029		
Capacity (P.S.I.G.)	2800		
Instrument Depth	974'		
Instrument Opening	OUTSIDE		
Pressure Gradient P.S.I./Ft.			
Well Temperature °F.	103		
Initial Hydrostatic Mud A			
Initial Shut-in B			
Initial Flow C			
Final Flow D			
Final Shut-in E			
Final Hydrostatic Mud F			

Field Report No. 09082 C

TIME DATA

Time Given	Time Computed
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.

Remarks:

**Shut in pressure did not reach static reservoir pressure.*

Clock Travel 0.021261 inches per min.

PRESSURE INCREMENTS

Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$
1	345.4		90	350.0		205	348.8	
2	351.7		95	350.0		210	348.8	
3 0	302.0		100	349.4		215	349.4	
1	305.9		105	348.8		220	349.4	
2	318.9		110	350.5		225	349.4	
3	329.6		115	350.5		230	349.4	
4	338.7		4 116	350.5		235	349.4	
5	343.8		5 117	356.2		240	349.4	
6	345.4		6 118	337.0		245	349.4	
7	346.0		120	337.0		250	349.3	
8	346.6		125	334.7		255	350.0	
9	346.6		130	334.1		260	350.0	
10	347.1		135	333.6		265	350.5	
11	347.1		140	333.6		270	351.1	
12	347.1		145	333.6		275	351.1	
13	347.7		150	333.6		280	351.1	
14	347.7		155	333.0		285	351.1	
15	347.7		160	333.0		290	351.1	
20	347.7		165	333.0		295	351.1	
25	348.3		170	332.5		300	351.1	
30	348.3		7 173	332.5		305	351.1	
35	348.3		8 174	321.7		310	351.1	
40	348.3		175	332.5		315	351.1	
45	348.3		176	339.8		320	351.1	
50	348.8		177	343.2		325	351.1	
55	348.8		178	344.3		330	351.1	
60	348.8		179	344.9		335	351.1	
65	348.8		180	345.4	II B-2035	340	351.1	
70	348.8		185	347.1		345	351.1	
75	349.4		190	347.7		350	351.7	
80	350.0		195	348.3		355	352.2	
85	350.0		200	348.8		360	352.2	

PRESSURE DATA

Instrument No.	J-029			
Capacity (P.S.I.G.)				
Instrument Depth				
Instrument Opening				
Pressure Gradient P.S.I./Ft.				
Well Temperature °F.				
Initial Hydrostatic Mud	A			
Initial Shut-in	B			
Initial Flow	C			
Final Flow	D			
Final Shut-in	E			
Final Hydrostatic Mud	F			

Field Report No. 09082 C

TIME DATA

Time Given	Time Computed
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.

Remarks:

**Shut In pressure did not reach static reservoir pressure.*

Clock Travel 0.021261 inches per min.

PRESSURE INCREMENTS

Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$
365	352.2		448	354.5				
370	352.2		450	354.5				
375	352.2		452	353.9				
380	352.2		454	353.9				
385	352.2		456	353.9				
390	352.2		458	353.9				
395	352.2		460	353.4				
400	352.2		462	353.4				
9 403	352.2		464	353.4				
404	355.0		12 466	353.4				
406	356.7		468	350.5				
408	357.3		470	350.5				
410	357.3		472	350.5				
412	357.9		474	350.5				
414	357.9		13 475	350.5				
416	357.9		14	346.6				
418	357.9							
420	357.9							
10 422	357.9							
424	362.4							
426	364.6							
428	365.2							
430	365.8							
432	365.8							
434	365.8							
436	365.8							
11 437	365.8							
438	363.5							
440	357.3							
442	355.6							
444	355.0							
446	354.5							

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PRESSURE DATA

Instrument No.	4097 N		
Capacity (P.S.I.G.)	2800		
Instrument Depth	1008'		
Instrument Opening	OUTSIDE		
Pressure Gradient P.S.I./Ft.			
Well Temperature °F.	103		
Initial Hydrostatic Mud A			
Initial Shut-in B			
Initial Flow C			
Final Flow D			
Final Shut-in E			
Final Hydrostatic Mud F			

Field Report No. 09082 C

TIME DATA

Time Given	Time Computed
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.
Mins.	Mins.

Remarks:

BELOW STRADDLE

*Shut in pressure did not reach static reservoir pressure.

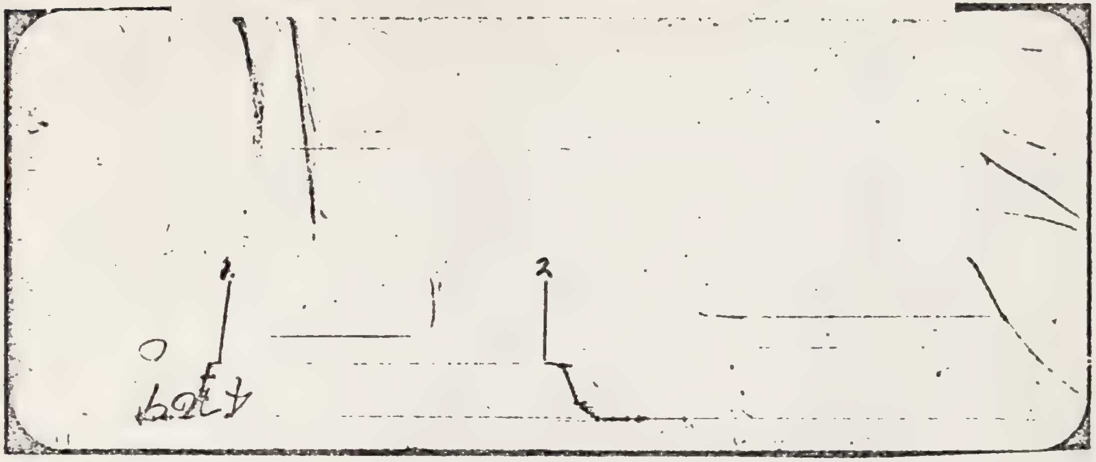
Clock Travel ______ inches per min.

PRESSURE INCREMENTS

Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$	Point Minutes	Pressure	$\frac{T+\Delta t}{\Delta t}$
1	380.9							
2	389.3							

JOHNSTON

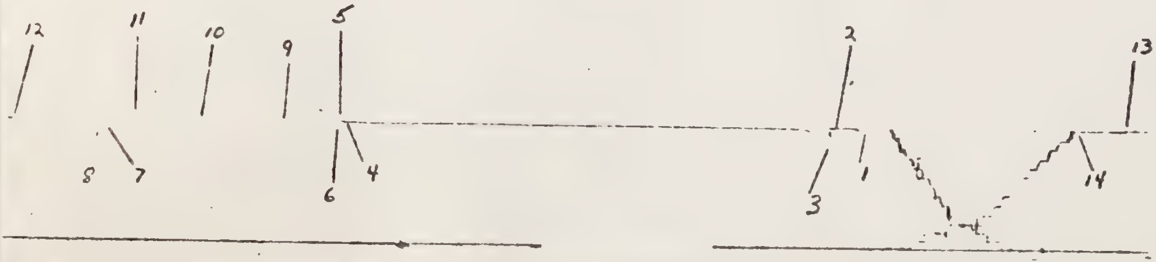
FIELD REPORT NO.	RECORDER NO.
09082 C	4097 N
CAPACITY	REPORTS REQUESTED
2800#	14+



JOHNSTON

FIELD REPORT NO.	RECORDER NO.
09082 C	J-029
CAPACITY	REPORTS REQUESTED
2800#	14+

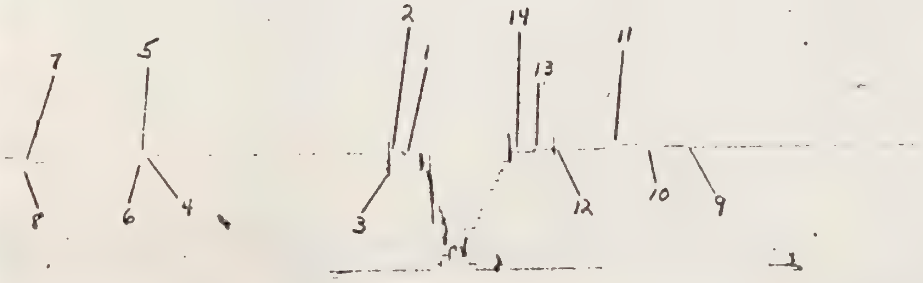
029



JOHNSTON

FIELD REPORT NO.	RECORDER NO.
09082 C	J-405
CAPACITY	REPORTS REQUESTED
2800#	14+

405



RUN #1 ELEV. GL.=6811

PRESSURE GAUGE DRILL
STEM TEST SHEET

Job no. SPG-11221 MPT #2 12/21/74 RUN #1 & #2

OFFICE: CASPER

Customer - ARCO Et AL Location - Sorghum Gulch

State - Colorado County - Rio BLANCO

Well - SPG #21 Field - TRACT Cb

ARRIVE: Well RUN #1 2300 hrs. 12/20/74

Depart: Well RUN #1 1230 hrs. 12/21/74

ARRIVE: Well RUN #2 1230 hrs 12/21/74

Depart: Well Run #2 0400 hrs. 12/22/74

Run # 1

Gauge Start in Hole: 1. 0124 hrs 12/21/74 2. 0216 hrs 12/21/74 3. 0330 hrs 12/21/74

Gauge Out of Hole: 1. Not operating 2. 1444 hrs. 12/21/74 3. 1401 hrs. 12/21/7

1. = Gauge # 154 2. = Gauge # 136 3. = Gauge # 222

RUN # 2

Gauge Start in Hole: 1. 1501 hrs. 12/21/74 2. 1507 hrs. 12/21/74 3. 1604 hrs. 12/21/74

Gauge Out of Hole: 1. 0324 hrs 12/22/74 2. 0301 hrs. 12/22/74 3. 0344 hrs. 12/22/74

1. = Gauge # 136 2. = Gauge # 222 3. = Gauge # 188

No. Trips 0 On Location Mileage charged to SPG 11221 DST 1

RUN # 1

Top Gauge # 222 Element # 35990 Range 1400 Time Mode 1 min

Middle Inside Gauge # 136 Element # 35336 Range 2000 Time Mode 1 min

Bottom Inside Gauge # 154 Element # 35334 Range 2000 Time Mode 1 min

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sperry-sun
P.O. Box 36363 Houston, Texas 77036 Phone (713) 494-3021
Cable SPERRYSUN TELEX 76-2795

Houston, Corpus Christi and Odessa, Tex./Lafayette and New Orleans, La./Long Beach and Ventura, Calif./Anchorage, Alaska/Brewton, Ala./Brookhaven, Miss./Casper, Wyo./Mercury, Nev./Oklahoma City, Okla./Vernal, Utah/Edmonton, Alta., Canada/Dubai, United Arab Emirates, Arabian Gulf/Great Yarmouth, Norfolk, England/Aberdeen, Scotland/Servco de Venezuela, Maracaibo/Trinidad Well Control, Trinidad, W.I.

JOB NUMBER
SPG-11221-MPT-1

DATE OF JOB

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

PREPARED FOR

ATLANTIC RICHFIELD COMPANY

WELL NUMBER,	FEDERAL SG-21
FIELD/LEASE	TRACT C-B SORGHUM GULCH
COUNTY/PARISH	RIO BLANCO
STATE	COLORADO
TYPE OF TEST	DRILL STEM
REFERENCE ELEV	GROUND LEVEL

ADDITIONAL INFORMATION

USED GAUGE NO. 222 WITH 1400LB. ELEMENT
GAUGE DEPTH IS 907FT. OUTSIDE DRILL PIPE
GAUGE ABOVE PACKER SET AT 950 FEET.
GROUND LEVEL REFERENCE IS 6811 FEET
INITIAL HYDROSTATIC IS 332.65 PSI.
TEST INTERVAL IS FROM SURFACE TO
950FT. (TOP PACKER DEPTH)
NO FINAL HYDROSTATIC AVAILABLE.

118 POINTS REPORTED THIS JOB

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JOB NUMBER                                                              DATE OF JOB
SPG-11221-MPT-1

GAUGE/RUN NUMBER                                                        DATE OF RUN
222   RUN-1   INIT.OPEN

                                     SPERRY-SUN
                      PRECISION SUBSURFACE PRESSURE GAUGE REPORT

   DELTA    PRESSURE                    TIME      DATE            COMMENTS
   TIME      (PSI)                     HR MIN

   0.000    337.292                    05  18 DEC 21,1974   INITIAL OPEN
    .017    337.259                    05  19 DEC 21,1974
    .033    337.326                    05  20 DEC 21,1974   END OPEN
```

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                              3 POINTS REPORTED THIS RUN
```

JOB NUMBER
SPG-11221-MPT=1

DATE OF JOB

GAUGE/RUN NUMBER
222 RUN=1 SHUT IN

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0.000	337.326	05	20	DEC 21,1974	INITIAL CLOSE
.016	338.194	05	21	DEC 21,1974	
.032	338.261	05	22	DEC 21,1974	
.048	338.395	05	23	DEC 21,1974	
.064	338.462	05	24	DEC 21,1974	
.080	338.495	05	25	DEC 21,1974	
.096	338.529	05	26	DEC 21,1974	
.111	338.629	05	27	DEC 21,1974	
.127	338.796	05	28	DEC 21,1974	
.143	338.796	05	29	DEC 21,1974	
.159	337.058	05	30	DEC 21,1974	TOOL ACTION
.175	337.961	05	31	DEC 21,1974	
.191	338.328	05	31	DEC 21,1974	
.207	338.462	05	32	DEC 21,1974	
.223	338.462	05	33	DEC 21,1974	
.239	338.562	05	34	DEC 21,1974	
.255	338.595	05	35	DEC 21,1974	
.271	338.595	05	36	DEC 21,1974	
.287	338.595	05	37	DEC 21,1974	
.303	338.562	05	38	DEC 21,1974	
.319	338.595	05	39	DEC 21,1974	
.334	338.662	05	40	DEC 21,1974	
.350	338.629	05	41	DEC 21,1974	
.366	338.662	05	42	DEC 21,1974	
.382	338.729	05	43	DEC 21,1974	
.398	338.696	05	44	DEC 21,1974	
.414	338.662	05	45	DEC 21,1974	
.430	338.662	05	46	DEC 21,1974	
.446	338.629	05	47	DEC 21,1974	
.462	338.763	05	48	DEC 21,1974	
.478	338.662	05	49	DEC 21,1974	
.494	338.662	05	50	DEC 21,1974	
.510	338.696	05	51	DEC 21,1974	
.526	338.729	05	52	DEC 21,1974	
.541	338.629	05	52	DEC 21,1974	
.557	338.696	05	53	DEC 21,1974	
.573	338.763	05	54	DEC 21,1974	
.589	338.796	05	55	DEC 21,1974	
.605	338.696	05	56	DEC 21,1974	
.621	338.729	05	57	DEC 21,1974	

JOB NUMBER
SPG-11221-MPT=1

DATE OF JOB

GAUGE/RUN NUMBER
222 RUN=1 SHUT IN

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
.637	338.662	05	58	DEC 21,1974	
.653	338.763	05	59	DEC 21,1974	
.669	338.729	06	00	DEC 21,1974	
.685	338.729	06	01	DEC 21,1974	
.701	338.696	06	02	DEC 21,1974	
.717	338.796	06	03	DEC 21,1974	END SHUT-IN

46 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11221-MPT=1

DATE OF JOB

GAUGE/RUN NUMBER
222 RUN=1 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0,000	338,796	06	03	DEC 21,1974	START FLOW
,016	337,693	06	04	DEC 21,1974	
,032	338,495	06	05	DEC 21,1974	
,049	338,562	06	06	DEC 21,1974	
,065	338,696	06	07	DEC 21,1974	
,081	338,729	06	08	DEC 21,1974	
,097	338,729	06	09	DEC 21,1974	
,113	338,930	06	10	DEC 21,1974	
,129	339,063	06	11	DEC 21,1974	
,146	338,930	06	12	DEC 21,1974	
,162	338,996	06	13	DEC 21,1974	
,178	338,996	06	14	DEC 21,1974	
,194	339,063	06	15	DEC 21,1974	
,210	339,063	06	16	DEC 21,1974	
,226	338,996	06	17	DEC 21,1974	
,243	339,097	06	18	DEC 21,1974	
,259	339,097	06	19	DEC 21,1974	
,275	339,063	06	19	DEC 21,1974	
,291	338,996	06	20	DEC 21,1974	
,307	339,030	06	21	DEC 21,1974	
,324	339,130	06	22	DEC 21,1974	
,340	339,130	06	23	DEC 21,1974	
,356	339,130	06	24	DEC 21,1974	
,372	339,097	06	25	DEC 21,1974	
,388	339,097	06	26	DEC 21,1974	
,404	339,130	06	27	DEC 21,1974	
,421	339,063	06	28	DEC 21,1974	
,437	339,097	06	29	DEC 21,1974	
,453	339,230	06	30	DEC 21,1974	
,469	339,130	06	31	DEC 21,1974	
,485	339,063	06	32	DEC 21,1974	
,501	339,097	06	33	DEC 21,1974	END RECOVERY
,518	339,164	06	34	DEC 21,1974	
,534	339,130	06	35	DEC 21,1974	
,550	339,130	06	36	DEC 21,1974	
,566	339,097	06	37	DEC 21,1974	
,582	339,197	06	38	DEC 21,1974	
,599	339,130	06	39	DEC 21,1974	
,615	339,130	06	40	DEC 21,1974	
,631	339,130	06	41	DEC 21,1974	

JOB NUMBER
SPG-11221-MPT=1

DATE OF JOB

GAUGE/RUN NUMBER
222 RUN=1 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
,647	339,164	06	42	DEC 21,1974	
,663	339,164	06	43	DEC 21,1974	
,679	339,164	06	44	DEC 21,1974	
,696	339,130	06	45	DEC 21,1974	
,712	339,130	06	46	DEC 21,1974	
,728	339.197	06	47	DEC 21,1974	
,744	339.197	06	48	DEC 21,1974	
,760	339.230	06	49	DEC 21,1974	
,776	339.230	06	50	DEC 21,1974	
,793	339.197	06	51	DEC 21,1974	
,809	339.130	06	52	DEC 21,1974	
,825	339,230	06	52	DEC 21,1974	
,841	339.264	06	53	DEC 21,1974	
,857	339.230	06	54	DEC 21,1974	
,874	339.164	06	55	DEC 21,1974	
,890	339.230	06	56	DEC 21,1974	
,906	339.297	06	57	DEC 21,1974	
,922	339.197	06	58	DEC 21,1974	
,938	339,230	06	59	DEC 21,1974	
,954	339,230	07	00	DEC 21,1974	
,971	339.264	07	01	DEC 21,1974	
,987	339,230	07	02	DEC 21,1974	
1,003	339,264	07	03	DEC 21,1974	
1,019	339.297	07	04	DEC 21,1974	
1,035	339,264	07	05	DEC 21,1974	
1,051	339,197	07	06	DEC 21,1974	
1,068	339.230	07	07	DEC 21,1974	
1,084	339,230	07	08	DEC 21,1974	TEST ENDED JET
1,100	339,197	07	09	DEC 21,1974	PIPE DROPPED

69 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11221-MPT=2

DATE OF JOB
DECEMBER 21, 197

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

PREPARED FOR

ATLANTIC RICHFIELD COMPANY

WELL NUMBER	FEDERAL SG-21
FIELD/LEASE	TRACT C-B SORGHUM GULCH
COUNTY/PARISH	RIO BLANCO
STATE	COLORADO
TYPE OF TEST	DRILL STEM
REFERENCE ELEV	GROUND LEVEL

ADDITIONAL INFORMATION

USED GAUGE NO. 136 WITH 2000 LB. ELEMENT

GAUGE DEPTH IS 974FT. INSIDE DRILL PIPE

GAUGE BELOW PACKER SET AT 950FT.

GROUND LEVEL REFERENCE IS 6811 FEET

INITIAL HYDROSTATIC IS 342.56 PSI.

TEST INTERVAL IS FROM 950FT. (TOP
PACKER DEPTH) TO 1000FT. (BOTTOM
PACKER DEPTH)

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114 POINTS REPORTED THIS JOB

```
JOB NUMBER                                                         DATE OF JOB
SPG-11221-MPT=2                                               DECEMBER 21, 197

GAUGE/RUN NUMBER                                                   DATE OF RUN
136    RUN=1    INIT.OPEN

                                   SPERRY-SUN
                    PRECISION SUBSURFACE PRESSURE GAUGE REPORT

         DELTA    PRESSURE                 TIME      DATE             COMMENTS
         TIME      (PSI)                  HR MIN

         0,000    380,296                 05  18 DEC 21,1974    INITIAL OPEN
          ,033    381,319                 05  20 DEC 21,1974    END OPEN
```

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                        2 POINTS REPORTED THIS RUN
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JOB NUMBER
SPG-11221-MPT=2

DATE OF JOB
DECEMBER 21, 197

GAUGE/RUN NUMBER
136 RUN=1 SHUT IN

DATE OF RUN
-

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	TIME MIN	DATE	COMMENTS
0.000	381.319	05	20	DEC 21,1974	INITIAL CLOSE
.016	382.157	05	21	DEC 21,1974	
.033	382.622	05	22	DEC 21,1974	
.049	382.994	05	23	DEC 21,1974	
.065	383.367	05	24	DEC 21,1974	
.081	383.413	05	25	DEC 21,1974	
.098	383.646	05	26	DEC 21,1974	
.114	383.739	05	27	DEC 21,1974	
.130	383.832	05	28	DEC 21,1974	
.147	383.972	05	29	DEC 21,1974	
.163	384.018	05	30	DEC 21,1974	
.179	384.111	05	31	DEC 21,1974	
.195	384.158	05	32	DEC 21,1974	
.212	384.158	05	33	DEC 21,1974	
.228	384.204	05	34	DEC 21,1974	
.244	384.251	05	35	DEC 21,1974	
.261	384.297	05	36	DEC 21,1974	
.277	384.344	05	37	DEC 21,1974	
.293	384.344	05	38	DEC 21,1974	
.309	384.344	05	39	DEC 21,1974	
.326	384.390	05	40	DEC 21,1974	
.342	384.390	05	41	DEC 21,1974	
.358	384.390	05	42	DEC 21,1974	
.375	384.390	05	42	DEC 21,1974	
.391	384.437	05	43	DEC 21,1974	
.407	384.344	05	44	DEC 21,1974	
.423	384.390	05	45	DEC 21,1974	
.440	384.437	05	46	DEC 21,1974	
.456	384.483	05	47	DEC 21,1974	
.472	384.344	05	48	DEC 21,1974	
.489	384.344	05	49	DEC 21,1974	
.505	384.483	05	50	DEC 21,1974	
.521	384.483	05	51	DEC 21,1974	
.538	384.437	05	52	DEC 21,1974	
.554	384.437	05	53	DEC 21,1974	
.570	384.530	05	54	DEC 21,1974	
.586	384.809	05	55	DEC 21,1974	
.603	384.623	05	56	DEC 21,1974	
.619	384.576	05	57	DEC 21,1974	
.635	384.530	05	58	DEC 21,1974	

JOB NUMBER
SPG-11221-MPT=2

DATE OF JOB
DECEMBER 21, 197

GAUGE/RUN NUMBER
136 RUN=1 SHUT IN

DATE OF RUN

SPERRY-SUN

PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
.652	384,623	05	59	DEC 21,1974	
.668	384.530	06	00	DEC 21,1974	
.684	384.902	06	01	DEC 21,1974	
.700	384,530	06	02	DEC 21,1974	
.717	384,902	06	03	DEC 21,1974	END SHUT-IN

45 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11221-MPT-2

DATE OF JOB
DECEMBER 21, 197

GAUGE/RUN NUMBER
136 RUN=1 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	TIME MIN	DATE	COMMENTS
0,000	384,902	06	03	DEC 21,1974	OPEN FLOW
,017	370,989	06	04	DEC 21,1974	
,033	376.852	06	05	DEC 21,1974	
,050	380,994	06	06	DEC 21,1974	
.067	382.576	06	07	DEC 21,1974	
,083	383,087	06	08	DEC 21,1974	
,100	383,367	06	09	DEC 21,1974	
.117	383,692	06	10	DEC 21,1974	
,133	383,832	06	11	DEC 21,1974	
,150	383,972	06	12	DEC 21,1974	
,167	384,018	06	13	DEC 21,1974	
,183	384.111	06	14	DEC 21,1974	
,200	384.204	06	15	DEC 21,1974	
,217	384.297	06	16	DEC 21,1974	
,233	384.251	06	17	DEC 21,1974	
,250	384,297	06	18	DEC 21,1974	
,267	384.297	06	19	DEC 21,1974	
,283	384.297	06	20	DEC 21,1974	
,300	384.344	06	21	DEC 21,1974	
,317	384,344	06	22	DEC 21,1974	
,333	384.297	06	23	DEC 21,1974	
,350	384,390	06	24	DEC 21,1974	
,367	384.390	06	25	DEC 21,1974	
,383	384,390	06	26	DEC 21,1974	
,400	384,437	06	27	DEC 21,1974	
,417	384,437	06	28	DEC 21,1974	
,433	384,437	06	29	DEC 21,1974	
,450	384.437	06	30	DEC 21,1974	
,467	384,437	06	31	DEC 21,1974	
,483	384,483	06	32	DEC 21,1974	
,500	384,437	06	33	DEC 21,1974	
,517	384,483	06	34	DEC 21,1974	END RECOVERY
,533	384,483	06	35	DEC 21,1974	
,550	384.530	06	36	DEC 21,1974	
,567	384.483	06	37	DEC 21,1974	
,583	384,483	06	38	DEC 21,1974	
,600	384,437	06	39	DEC 21,1974	
,617	384,530	06	40	DEC 21,1974	
,633	384.576	06	41	DEC 21,1974	
,650	384,576	06	42	DEC 21,1974	

JOB NUMBER
SPG-11221-MPT=2

DATE OF JOB
DECEMBER 21, 197

GAUGE/RUN NUMBER
136 RUN=1 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
.667	384.576	06	43	DEC 21,1974	
.683	384.623	06	44	DEC 21,1974	
.700	384.670	06	45	DEC 21,1974	
.717	384.576	06	46	DEC 21,1974	
.733	384.576	06	47	DEC 21,1974	
.750	384.623	06	48	DEC 21,1974	
.767	384.623	06	49	DEC 21,1974	
.783	384.623	06	50	DEC 21,1974	
.800	384.623	06	51	DEC 21,1974	
.817	384.623	06	52	DEC 21,1974	
.833	384.670	06	53	DEC 21,1974	
.850	384.623	06	54	DEC 21,1974	
.867	384.623	06	55	DEC 21,1974	
.883	384.530	06	56	DEC 21,1974	
.900	384.670	06	57	DEC 21,1974	
.917	384.670	06	58	DEC 21,1974	
.933	384.623	06	59	DEC 21,1974	
.950	384.530	07	00	DEC 21,1974	
.967	384.576	07	01	DEC 21,1974	
.983	384.623	07	02	DEC 21,1974	
1.000	384.623	07	03	DEC 21,1974	
1.017	384.623	07	04	DEC 21,1974	
1.033	384.576	07	05	DEC 21,1974	
1.050	384.623	07	06	DEC 21,1974	
1.067	384.576	07	07	DEC 21,1974	
1.083	384.623	07	08	DEC 21,1974	TEST ENDED JET
1.100	384.390	07	09	DEC 21,1974	PIPE DROPPED

67 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11221-MPT=2

DATE OF JOB
DECEMBER 21, 197

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

PREPARED FOR

ATLANTIC RICHFIELD COMPANY

WELL NUMBER	FEDERAL SG-21
FIELD/LEASE	SORGHUM GULCH TRACT CB
COUNTY/PARISH	RIO BLANCO
STATE	COLORADO
TYPE OF TEST	DRILL STEM
REFERENCE ELEV	GROUND LEVEL

ADDITIONAL INFORMATION

USED GAUGE NO. 154 WITH 2000 LB. ELEMENT

GAUGE DEPTH IS 1018 FT. INSIDE DRILL PIPE

GAUGE BELOW PACKER SET AT 1000 FEET

GROUND LEVEL REFERENCE IS 6811 FEET

INITIAL HYDROSTATIC IS 385.26 PSI.

TEST INTERVAL IS FROM 1000FT. (LOWER PACKER DEPTH) TO 1036 FT. (TAIL PIPE DEPTH)

NO FINAL HYDROSTATIC AVAILABLE.

II B-2053

117 POINTS REPORTED THIS JOB

PAGE 1 OF 6 PAGES

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JOB NUMBER                                                            DATE OF JOB
SPG-11221-MPT=2                                                       DECEMBER 21, 197

GAUGE/RUN NUMBER                                                      DATE OF RUN
154   RUN=1  INIT,OPEN

                                  SPERRY-SUN
                   PRECISION SUBSURFACE PRESSURE GAUGE REPORT

        DELTA    PRESSURE                    TIME      DATE              COMMENTS
        TIME      (PSI)                     HR MIN

        0,000    505.885                    05   18 DEC 21,1974   INITIAL OPEN
         ,017    505.559                    05   19 DEC 21,1974
         ,033    505,419                    05   20 DEC 21,1974   END OPEN
```

3 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11221-MPT=2

DATE OF JOB
DECEMBER 21, 197

GAUGE/RUN NUMBER
154 MPT=2 SHUT IN

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0.000	505.419	05	20	DEC 21,1974	INITIAL SHUTIN
.016	505.280	05	21	DEC 21,1974	
.033	505.140	05	22	DEC 21,1974	
.049	505.233	05	23	DEC 21,1974	
.065	505.093	05	24	DEC 21,1974	
.081	462.093	05	25	DEC 21,1974	
.098	504.627	05	26	DEC 21,1974	
.114	506.072	05	27	DEC 21,1974	
.130	500.668	05	28	DEC 21,1974	
.147	501.879	05	29	DEC 21,1974	
.163	502.484	05	30	DEC 21,1974	
.179	502.997	05	31	DEC 21,1974	
.195	503.323	05	32	DEC 21,1974	
.212	503.556	05	33	DEC 21,1974	
.228	503.649	05	34	DEC 21,1974	
.244	503.789	05	35	DEC 21,1974	
.261	503.975	05	36	DEC 21,1974	
.277	503.975	05	37	DEC 21,1974	
.293	504.068	05	38	DEC 21,1974	
.309	504.162	05	39	DEC 21,1974	
.326	504.255	05	40	DEC 21,1974	
.342	504.301	05	41	DEC 21,1974	
.358	504.348	05	42	DEC 21,1974	
.375	504.348	05	42	DEC 21,1974	
.391	504.348	05	43	DEC 21,1974	
.407	504.395	05	44	DEC 21,1974	
.423	504.395	05	45	DEC 21,1974	
.440	504.441	05	46	DEC 21,1974	
.456	504.395	05	47	DEC 21,1974	
.472	504.395	05	48	DEC 21,1974	
.489	504.441	05	49	DEC 21,1974	
.505	504.441	05	50	DEC 21,1974	
.521	504.488	05	51	DEC 21,1974	
.538	504.534	05	52	DEC 21,1974	
.554	504.488	05	53	DEC 21,1974	
.570	504.534	05	54	DEC 21,1974	
.586	504.534	05	55	DEC 21,1974	
.603	504.488	05	56	DEC 21,1974	
.619	504.488	05	57	DEC 21,1974	
.635	504.488	05	58	DEC 21,1974	

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JOB NUMBER                                                        DATE OF JOB
SPG-11221-MPT=2                                                 DECEMBER 21, 197

GAUGE/RUN NUMBER                                                  DATE OF RUN
154    MPT=2  SHUT IN

                                  SPERRY-SUN
                  PRECISION SUBSURFACE PRESSURE GAUGE REPORT

      DELTA    PRESSURE                  TIME      DATE              COMMENTS
      TIME      (PSI)                   HR MIN

      .652     504.627                  05  59 DEC 21,1974
      .668     504.581                  06  00 DEC 21,1974
      .684     504.581                  06  01 DEC 21,1974
      .700     504.627                  06  02 DEC 21,1974
      .717     505.140                  06  03 DEC 21,1974   END SHUTIN
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                      45 POINTS REPORTED THIS RUN
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JOB NUMBER
SPG-11221-MPT=2

DATE OF JOB
DECEMBER 21, 197

GAUGE/RUN NUMBER
154 MPT=2 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0,000	505,140	06	03	DEC 21,1974	START FLOW
,016	504,814	06	04	DEC 21,1974	
,032	504.721	06	05	DEC 21,1974	
,049	504.721	06	06	DEC 21,1974	
,065	504,674	06	07	DEC 21,1974	
,081	504.627	06	08	DEC 21,1974	
,097	504.627	06	09	DEC 21,1974	
,113	489.906	06	10	DEC 21,1974	
,129	495.916	06	11	DEC 21,1974	
,146	500,574	06	12	DEC 21,1974	
,162	502,671	06	13	DEC 21,1974	
.178	503.183	06	14	DEC 21,1974	
,194	503.556	06	15	DEC 21,1974	
,210	503,742	06	16	DEC 21,1974	
,226	503.835	06	17	DEC 21,1974	
,243	503.975	06	18	DEC 21,1974	
,259	504,115	06	19	DEC 21,1974	
,275	504.208	06	19	DEC 21,1974	
,291	504,208	06	20	DEC 21,1974	
,307	504,301	06	21	DEC 21,1974	
.324	504,301	06	22	DEC 21,1974	
,340	504,301	06	23	DEC 21,1974	
.356	504.441	06	24	DEC 21,1974	
,372	504,488	06	25	DEC 21,1974	
,388	504.441	06	26	DEC 21,1974	
,404	504,441	06	27	DEC 21,1974	
,421	504,488	06	28	DEC 21,1974	
,437	504,534	06	29	DEC 21,1974	
,453	504.581	06	30	DEC 21,1974	
,469	504,488	06	31	DEC 21,1974	
,485	504,395	06	32	DEC 21,1974	
,501	504,488	06	33	DEC 21,1974	END RECOVERY
,518	504,488	06	34	DEC 21,1974	
,534	504.488	06	35	DEC 21,1974	
,550	504,534	06	36	DEC 21,1974	
,566	504,488	06	37	DEC 21,1974	
,582	504.534	06	38	DEC 21,1974	
.599	504.581	06	39	DEC 21,1974	
,615	504,581	06	40	DEC 21,1974	
,631	504,534	06	41	DEC 21,1974	

JOB NUMBER
SPG-11221-MPT=2

DATE OF JOB
DECEMBER 21, 197

GAUGE/RUN NUMBER
154 MPT=2 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
,647	504,534	06	42	DEC 21,1974	
,663	504,581	06	43	DEC 21,1974	
,679	504,534	06	44	DEC 21,1974	
,696	504,534	06	45	DEC 21,1974	
,712	504,581	06	46	DEC 21,1974	
,728	504,581	06	47	DEC 21,1974	
,744	504,534	06	48	DEC 21,1974	
,760	504,534	06	49	DEC 21,1974	
,776	504,581	06	50	DEC 21,1974	
,793	504,627	06	51	DEC 21,1974	
,809	504,627	06	52	DEC 21,1974	
,825	504,627	06	52	DEC 21,1974	
,841	504,674	06	53	DEC 21,1974	
,857	504,674	06	54	DEC 21,1974	
,874	504,627	06	55	DEC 21,1974	
,890	504,627	06	56	DEC 21,1974	
,906	504,674	06	57	DEC 21,1974	
,922	504,721	06	58	DEC 21,1974	
,938	504,627	06	59	DEC 21,1974	
,954	504,627	07	00	DEC 21,1974	
,971	509,286	07	01	DEC 21,1974	
,987	504,674	07	02	DEC 21,1974	
1,003	504,674	07	03	DEC 21,1974	
1,019	504,674	07	04	DEC 21,1974	
1,035	504,674	07	05	DEC 21,1974	
1,051	504,627	07	06	DEC 21,1974	
1,068	504,674	07	07	DEC 21,1974	
1,084	504,674	07	08	DEC 21,1974	TEST ENDED JET
1,100	504,674	07	09	DEC 21,1974	PIPE DROPPED

69 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11221-MPT=2

DATE OF JOB
DECEMBER 21 AND 22, 1974

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

PREPARED FOR

ATLANTIC RICHFIELD COMPANY

WELL NUMBER	FEDERAL SG-21
FIELD/LEASE	SORGHUM GULCH TRACT CB
COUNTY/PARISH	RIO BLANCO
STATE	COLORADO
TYPE OF TEST	MULTIPLE PACKER DRILL STEM
REFERENCE ELEV	GROUND LEVEL

ADDITIONAL INFORMATION

THIS REPORT FROM GAUGE NO.222 RUN IN ANNULUS AT 907 FT. FROM SURFACE.

UPPER PACKER DEPTH WAS 950 FT.

REFERENCE ELEVATION IS 6811 FT.

INITIAL HYDROSTATIC WAS 336.25 PSI

FINAL HYDROSTATIC WAS 336.69 PSI

TESTED ZONE WAS FROM 950 FT (UPPER PACKER) TO 1000 FT (LOWER PACKER)

LOWER OBSERVATION ZONE WAS FROM 1000 FT (LOWER PACKER) TO 1036 FT (T.D.)

478 POINTS REPORTED THIS JOB

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JOB NUMBER                                                      DATE OF JOB
SPG-11221-MPT=2                                  DECEMBER 21 AND 22, 1974

GAUGE/RUN NUMBER                                                DATE OF RUN
222   MPT-NO,2

                              SPERRY-SUN
                 PRECISION SUBSURFACE PRESSURE GAUGE REPCRT

    DELTA   PRESSURE               TIME    DATE             COMMENTS
    TIME     (PSI)                HR MIN

    0,000    344,823              17  07 DEC 21,1974   INITIAL OPEN
     ,017    344,956              17  08 DEC 21,1974
     ,033    344,989              17  09 DEC 21,1974
     ,050    344,989              17  10 DEC 21,1974
     ,067    344,989              17  11 DEC 21,1974
     ,083    345,023              17  12 DEC 21,1974   END FLOW

                     6 POINTS REPORTED THIS RUN

                              PAGE  2
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JOB NUMBER
SPG-11221-MPT=2

DATE OF JOB
DECEMBER 21 AND 22, 1974

GAUGE/RUN NUMBER
222 MPT-NO,2

DATE OF RUN

SPERRY-SUN

PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0,000	345,023	17	12	DEC 21,1974	INITIAL SHUTIN
,017	344,956	17	13	DEC 21,1974	
,034	345,023	17	14	DEC 21,1974	
,052	345,023	17	15	DEC 21,1974	
,069	345,023	17	16	DEC 21,1974	
,086	345,023	17	17	DEC 21,1974	
,103	345,023	17	18	DEC 21,1974	
,120	345,023	17	19	DEC 21,1974	
,137	345,023	17	20	DEC 21,1974	
,155	344,989	17	21	DEC 21,1974	
,172	345,089	17	22	DEC 21,1974	
,189	345,023	17	23	DEC 21,1974	
,206	344,989	17	24	DEC 21,1974	
,223	345,023	17	25	DEC 21,1974	
,240	345,023	17	26	DEC 21,1974	
,258	345,056	17	27	DEC 21,1974	
,275	344,989	17	28	DEC 21,1974	
,292	344,989	17	30	DEC 21,1974	
,309	345,056	17	31	DEC 21,1974	
,326	344,989	17	32	DEC 21,1974	
,343	344,989	17	33	DEC 21,1974	
,361	344,956	17	34	DEC 21,1974	
,378	345,023	17	35	DEC 21,1974	
,395	345,089	17	36	DEC 21,1974	
,412	344,989	17	37	DEC 21,1974	
,429	345,023	17	38	DEC 21,1974	
,446	345,123	17	39	DEC 21,1974	
,464	345,056	17	40	DEC 21,1974	
,481	344,989	17	41	DEC 21,1974	
,498	344,989	17	42	DEC 21,1974	
,515	345,089	17	43	DEC 21,1974	
,532	345,056	17	44	DEC 21,1974	
,550	345,056	17	45	DEC 21,1974	
,567	345,023	17	46	DEC 21,1974	END SHUT IN

34 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11221-MPT-2

DATE OF JOB
DECEMBER 21 AND 22, 1974

GAUGE/RUN NUMBER
222 MPT-NO.2

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0.000	345.023	17	46	DEC 21,1974	FINAL OPEN
.017	345.089	17	47	DEC 21,1974	
.035	345.056	17	48	DEC 21,1974	
.052	345.056	17	49	DEC 21,1974	
.069	345.056	17	50	DEC 21,1974	
.087	345.089	17	51	DEC 21,1974	
.104	345.089	17	52	DEC 21,1974	
.121	345.023	17	53	DEC 21,1974	
.139	345.023	17	54	DEC 21,1974	
.156	345.089	17	55	DEC 21,1974	
.173	345.089	17	56	DEC 21,1974	
.190	345.023	17	57	DEC 21,1974	
.208	345.056	17	58	DEC 21,1974	
.225	345.123	18	00	DEC 21,1974	
.242	345.089	18	01	DEC 21,1974	
.260	345.089	18	02	DEC 21,1974	
.277	345.089	18	03	DEC 21,1974	
.294	345.089	18	04	DEC 21,1974	
.312	345.156	18	05	DEC 21,1974	
.329	345.089	18	06	DEC 21,1974	
.346	345.089	18	07	DEC 21,1974	
.364	345.123	18	08	DEC 21,1974	
.381	345.123	18	09	DEC 21,1974	
.398	345.089	18	10	DEC 21,1974	
.416	345.089	18	11	DEC 21,1974	
.433	345.156	18	12	DEC 21,1974	
.450	345.089	18	13	DEC 21,1974	
.468	345.089	18	14	DEC 21,1974	
.485	345.056	18	15	DEC 21,1974	
.502	345.156	18	16	DEC 21,1974	
.519	345.123	18	17	DEC 21,1974	
.537	345.089	18	18	DEC 21,1974	
.554	345.056	18	19	DEC 21,1974	
.571	345.123	18	20	DEC 21,1974	
.589	345.089	18	21	DEC 21,1974	
.606	345.156	18	22	DEC 21,1974	
.623	345.123	18	23	DEC 21,1974	
.641	345.123	18	24	DEC 21,1974	
.658	345.123	18	25	DEC 21,1974	
.675	345.123	18	27	DEC 21,1974	

JOB NUMBER
SPG-11221-MPT=2

DATE OF JOB
DECEMBER 21 AND 22, 1974

GAUGE/RUN NUMBER
222 MPT-NO.2

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
.693	345.089	18	28	DEC 21,1974	
.710	345.123	18	29	DEC 21,1974	
.727	345.123	18	30	DEC 21,1974	
.745	345.123	18	31	DEC 21,1974	
.762	345.089	18	32	DEC 21,1974	
.779	345.189	18	33	DEC 21,1974	
.796	345.189	18	34	DEC 21,1974	
.814	345.123	18	35	DEC 21,1974	
.831	345.123	18	36	DEC 21,1974	
.848	345.189	18	37	DEC 21,1974	
.866	345.189	18	38	DEC 21,1974	
.883	345.156	18	39	DEC 21,1974	
.900	345.156	18	40	DEC 21,1974	
.918	345.156	18	41	DEC 21,1974	
.935	345.156	18	42	DEC 21,1974	
.952	345.123	18	43	DEC 21,1974	
.970	345.156	18	44	DEC 21,1974	
.987	345.189	18	45	DEC 21,1974	
1.004	345.223	18	46	DEC 21,1974	
1.022	345.189	18	47	DEC 21,1974	
1.039	345.123	18	48	DEC 21,1974	
1.056	345.156	18	49	DEC 21,1974	
1.074	345.189	18	50	DEC 21,1974	
1.091	345.189	18	51	DEC 21,1974	
1.108	345.189	18	52	DEC 21,1974	
1.125	345.189	18	54	DEC 21,1974	
1.143	345.189	18	55	DEC 21,1974	
1.160	345.223	18	56	DEC 21,1974	
1.177	345.156	18	57	DEC 21,1974	
1.195	345.189	18	58	DEC 21,1974	
1.212	345.223	18	59	DEC 21,1974	
1.229	345.223	19	00	DEC 21,1974	
1.247	345.223	19	01	DEC 21,1974	
1.264	345.223	19	02	DEC 21,1974	
1.281	345.223	19	03	DEC 21,1974	
1.299	345.223	19	04	DEC 21,1974	
1.316	345.223	19	05	DEC 21,1974	
1.333	345.256	19	06	DEC 21,1974	
1.351	345.223	19	07	DEC 21,1974	
1.368	345.189	19	08	DEC 21,1974	

JOB NUMBER
SPG-11221-MPT=2

DATE OF JOB
DECEMBER 21 AND 22, 1974

GAUGE/RUN NUMBER
222 MPT-NO,2

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
1,385	345,189	19	09	DEC 21,1974	
1,403	345,189	19	10	DEC 21,1974	
1,420	345.189	19	11	DEC 21,1974	START JETTING
1,437	345,189	19	12	DEC 21,1974	AT 37 GPM
1,454	345.189	19	13	DEC 21,1974	
1,472	345.289	19	14	DEC 21,1974	
1,489	345.256	19	15	DEC 21,1974	
1,506	345,256	19	16	DEC 21,1974	
1,524	345.256	19	17	DEC 21,1974	
1,541	345.223	19	18	DEC 21,1974	
1,558	345.156	19	20	DEC 21,1974	
1,576	345.256	19	21	DEC 21,1974	
1,593	345.256	19	22	DEC 21,1974	
1,610	345.223	19	23	DEC 21,1974	
1,628	345,189	19	24	DEC 21,1974	
1,645	345.223	19	25	DEC 21,1974	
1.662	345.223	19	26	DEC 21,1974	
1,680	345.223	19	27	DEC 21,1974	
1,697	345.156	19	28	DEC 21,1974	
1,714	345.223	19	29	DEC 21,1974	
1,731	345,256	19	30	DEC 21,1974	
1,749	345,256	19	31	DEC 21,1974	
1,766	345,189	19	32	DEC 21,1974	
1,783	345,189	19	33	DEC 21,1974	
1,801	345.223	19	34	DEC 21,1974	
1,818	345,223	19	35	DEC 21,1974	
1,835	345.223	19	36	DEC 21,1974	
1,853	345.223	19	37	DEC 21,1974	
1,870	345.223	19	38	DEC 21,1974	
1,887	345,289	19	39	DEC 21,1974	
1,905	345,223	19	40	DEC 21,1974	
1,922	345,223	19	41	DEC 21,1974	
1,939	345.189	19	42	DEC 21,1974	
1,957	345,223	19	43	DEC 21,1974	
1,974	345,256	19	44	DEC 21,1974	
1,991	345.223	19	45	DEC 21,1974	
2,009	345.223	19	47	DEC 21,1974	
2,026	345.189	19	48	DEC 21,1974	
2,043	345,223	19	49	DEC 21,1974	
2,060	345,189	19	50	DEC 21,1974	

JOB NUMBER
SPG-11221-MPT=2

DATE OF JOB
DECEMBER 21 AND 22, 1974

GAUGE/RUN NUMBER
222 MPT-NO,2

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
2,078	345,189	19	51	DEC 21,1974	
2,095	345,189	19	52	DEC 21,1974	
2,112	345,189	19	53	DEC 21,1974	
2,130	345.189	19	54	DEC 21,1974	
2,147	345,223	19	55	DEC 21,1974	
2.164	345.223	19	56	DEC 21,1974	
2,182	345,189	19	57	DEC 21,1974	
2,199	345.223	19	58	DEC 21,1974	
2.216	345,223	19	59	DEC 21,1974	
2,234	345,256	20	00	DEC 21,1974	
2.251	345.256	20	01	DEC 21,1974	
2.268	345.189	20	02	DEC 21,1974	
2,286	345.156	20	03	DEC 21,1974	
2,303	345,256	20	04	DEC 21,1974	
2,320	345.256	20	05	DEC 21,1974	
2,338	345,256	20	06	DEC 21,1974	
2,355	345,256	20	07	DEC 21,1974	
2,372	345.223	20	08	DEC 21,1974	
2,389	345,223	20	09	DEC 21,1974	
2.407	345,156	20	10	DEC 21,1974	
2,424	345.223	20	11	DEC 21,1974	END JETTING
2,441	345,223	20	12	DEC 21,1974	
2,459	345,289	20	14	DEC 21,1974	
2,476	345.256	20	15	DEC 21,1974	
2,493	345.189	20	16	DEC 21,1974	
2,511	345.289	20	17	DEC 21,1974	
2,528	345,256	20	18	DEC 21,1974	
2,545	345,223	20	19	DEC 21,1974	
2.563	345,189	20	20	DEC 21,1974	
2,580	345,289	20	21	DEC 21,1974	
2,597	345.223	20	22	DEC 21,1974	
2.615	345.223	20	23	DEC 21,1974	
2,632	345,189	20	24	DEC 21,1974	
2,649	345,256	20	25	DEC 21,1974	
2,667	345.256	20	26	DEC 21,1974	
2,684	345,256	20	27	DEC 21,1974	
2,701	345.256	20	28	DEC 21,1974	
2,718	345,256	20	29	DEC 21,1974	
2,736	345.256	20	30	DEC 21,1974	
2,753	345,256	20	31	DEC 21,1974	

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DATE OF JOB
DECEMBER 21 AND 22, 1974

GAUGE/RUN NUMBER
222 MPT-NO,2

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
2,770	345,256	20	32	DEC 21,1974	
2,788	345,256	20	33	DEC 21,1974	
2,805	345,256	20	34	DEC 21,1974	
2,822	345.256	20	35	DEC 21,1974	
2,840	345.256	20	36	DEC 21,1974	
2,857	345.289	20	37	DEC 21,1974	
2,874	345.289	20	38	DEC 21,1974	
2,892	345,256	20	39	DEC 21,1974	
2,909	345.256	20	41	DEC 21,1974	
2,926	345,289	20	42	DEC 21,1974	
2.944	345.256	20	43	DEC 21,1974	
2.961	345,289	20	44	DEC 21,1974	
2,978	345,289	20	45	DEC 21,1974	
2,995	345,289	20	46	DEC 21,1974	
3,013	345,289	20	47	DEC 21,1974	
3,030	345.256	20	48	DEC 21,1974	
3,047	345.289	20	49	DEC 21,1974	
3,065	345.289	20	50	DEC 21,1974	
3,082	345.289	20	51	DEC 21,1974	
3,099	345.223	20	52	DEC 21,1974	
3,117	345.289	20	53	DEC 21,1974	
3,134	345.289	20	54	DEC 21,1974	
3,151	345,289	20	55	DEC 21,1974	
3,169	345,256	20	56	DEC 21,1974	
3,186	345,323	20	57	DEC 21,1974	
3,203	345.323	20	58	DEC 21,1974	
3,221	345,356	20	59	DEC 21,1974	
3,238	345,289	21	00	DEC 21,1974	
3,255	345,356	21	01	DEC 21,1974	
3.273	345,356	21	02	DEC 21,1974	
3,290	345.323	21	03	DEC 21,1974	
3,307	345.323	21	04	DEC 21,1974	
3,324	345,323	21	05	DEC 21,1974	
3,342	345.356	21	07	DEC 21,1974	
3,359	345,356	21	08	DEC 21,1974	
3,376	345,356	21	09	DEC 21,1974	
3,394	345.323	21	10	DEC 21,1974	
3.411	345,356	21	11	DEC 21,1974	
3,428	345.356	21	12	DEC 21,1974	
3,446	345,323	21	13	DEC 21,1974	

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DATE OF JOB
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DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
3.463	345.389	21	14	DEC 21,1974	
3.480	345.389	21	15	DEC 21,1974	
3.498	345.356	21	16	DEC 21,1974	
3.515	345.356	21	17	DEC 21,1974	
3.532	345.356	21	18	DEC 21,1974	
3.550	345.356	21	19	DEC 21,1974	
3.567	345.389	21	20	DEC 21,1974	
3.584	345.356	21	21	DEC 21,1974	
3.602	345.389	21	22	DEC 21,1974	
3.619	345.423	21	23	DEC 21,1974	
3.636	345.389	21	24	DEC 21,1974	
3.653	345.356	21	25	DEC 21,1974	
3.671	345.356	21	26	DEC 21,1974	
3.688	345.389	21	27	DEC 21,1974	
3.705	345.389	21	28	DEC 21,1974	
3.723	345.389	21	29	DEC 21,1974	
3.740	345.389	21	30	DEC 21,1974	
3.757	345.389	21	31	DEC 21,1974	
3.775	345.389	21	32	DEC 21,1974	
3.792	345.323	21	34	DEC 21,1974	
3.809	345.356	21	35	DEC 21,1974	
3.827	345.389	21	36	DEC 21,1974	
3.844	345.423	21	37	DEC 21,1974	
3.861	346.756	21	38	DEC 21,1974	
3.879	347.323	21	39	DEC 21,1974	START INJECT
3.896	347.656	21	40	DEC 21,1974	DOWN ANNULUS
3.913	347.856	21	41	DEC 21,1974	AT 20 GPM
3.931	347.923	21	42	DEC 21,1974	
3.948	348.023	21	43	DEC 21,1974	
3.965	348.123	21	44	DEC 21,1974	
3.982	348.190	21	45	DEC 21,1974	
4.000	348.190	21	46	DEC 21,1974	
4.017	348.256	21	47	DEC 21,1974	
4.034	348.356	21	48	DEC 21,1974	
4.052	348.356	21	49	DEC 21,1974	
4.069	348.423	21	50	DEC 21,1974	
4.086	348.457	21	51	DEC 21,1974	
4.104	348.457	21	52	DEC 21,1974	
4.121	348.423	21	53	DEC 21,1974	
4.138	348.457	21	54	DEC 21,1974	

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DATE OF JOB
DECEMBER 21 AND 22, 1974

GAUGE/RUN NUMBER
222 MPT-NO,2

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
4,156	348,457	21	55	DEC 21,1974	
4,173	348.557	21	56	DEC 21,1974	
4,190	348,557	21	57	DEC 21,1974	
4.208	349.523	21	58	DEC 21,1974	
4.225	349,957	21	59	DEC 21,1974	START 40 GPM
4,242	350,157	22	01	DEC 21,1974	DOWN ANNULUS
4.259	350.323	22	02	DEC 21,1974	
4,277	350.390	22	03	DEC 21,1974	
4.294	350.490	22	04	DEC 21,1974	
4,311	350,590	22	05	DEC 21,1974	
4,329	350,657	22	06	DEC 21,1974	
4,346	350.657	22	07	DEC 21,1974	
4,363	350.757	22	08	DEC 21,1974	
4,381	350.657	22	09	DEC 21,1974	
4,398	350.757	22	10	DEC 21,1974	
4,415	350.757	22	11	DEC 21,1974	
4,433	350.790	22	12	DEC 21,1974	
4,450	350.924	22	13	DEC 21,1974	
4,467	350,924	22	14	DEC 21,1974	
4,485	350,890	22	15	DEC 21,1974	
4,502	350,890	22	16	DEC 21,1974	
4,519	350.957	22	17	DEC 21,1974	
4,537	350.990	22	18	DEC 21,1974	
4,554	350.490	22	19	DEC 21,1974	START 60 GPM
4,571	350.357	22	20	DEC 21,1974	DOWN ANNULUS
4,588	350.257	22	21	DEC 21,1974	
4,606	350,257	22	22	DEC 21,1974	
4,623	350.190	22	23	DEC 21,1974	
4,640	350.257	22	24	DEC 21,1974	
4,658	350.290	22	25	DEC 21,1974	
4,675	350.290	22	27	DEC 21,1974	
4,692	350,290	22	28	DEC 21,1974	
4,710	350,290	22	29	DEC 21,1974	
4,727	350,290	22	30	DEC 21,1974	
4,744	350,223	22	31	DEC 21,1974	
4,762	350.223	22	32	DEC 21,1974	
4,779	350,223	22	33	DEC 21,1974	
4,796	350.223	22	34	DEC 21,1974	
4,814	350,223	22	35	DEC 21,1974	
4,831	350,223	22	36	DEC 21,1974	

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DATE OF JOB
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222 MPT-NO.2

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
4.848	350.223	22	37	DEC 21,1974	
4.866	350.223	22	38	DEC 21,1974	
4.883	350.223	22	39	DEC 21,1974	START DECLINE
4.900	348.923	22	40	DEC 21,1974	
4.917	347.690	22	41	DEC 21,1974	
4.935	347.156	22	42	DEC 21,1974	
4.952	346.856	22	43	DEC 21,1974	
4.969	346.623	22	44	DEC 21,1974	
4.987	346.490	22	45	DEC 21,1974	
5.004	346.423	22	46	DEC 21,1974	
5.021	346.289	22	47	DEC 21,1974	
5.039	346.223	22	48	DEC 21,1974	
5.056	346.223	22	49	DEC 21,1974	
5.073	346.156	22	50	DEC 21,1974	
5.091	346.156	22	51	DEC 21,1974	
5.108	346.056	22	52	DEC 21,1974	
5.125	346.023	22	54	DEC 21,1974	
5.143	346.023	22	55	DEC 21,1974	
5.160	345.956	22	56	DEC 21,1974	
5.177	345.956	22	57	DEC 21,1974	
5.194	345.923	22	58	DEC 21,1974	
5.212	346.023	22	59	DEC 21,1974	END DECLINE
5.229	345.956	23	00	DEC 21,1974	
5.246	345.889	23	01	DEC 21,1974	
5.264	345.923	23	02	DEC 21,1974	
5.281	345.889	23	03	DEC 21,1974	
5.298	345.856	23	04	DEC 21,1974	
5.316	345.823	23	05	DEC 21,1974	
5.333	345.823	23	06	DEC 21,1974	
5.350	345.856	23	07	DEC 21,1974	
5.368	345.856	23	08	DEC 21,1974	
5.385	345.789	23	09	DEC 21,1974	START 2 GPM
5.402	345.823	23	10	DEC 21,1974	DOWN DP
5.420	345.823	23	11	DEC 21,1974	
5.437	345.756	23	12	DEC 21,1974	
5.454	345.756	23	13	DEC 21,1974	
5.472	345.789	23	14	DEC 21,1974	
5.489	345.823	23	15	DEC 21,1974	
5.506	345.756	23	16	DEC 21,1974	
5.523	345.723	23	17	DEC 21,1974	

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DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
5.541	345.723	23	18	DEC 21,1974	
5.558	345.723	23	19	DEC 21,1974	
5.575	345.756	23	21	DEC 21,1974	
5.593	345.689	23	22	DEC 21,1974	
5.610	345.723	23	23	DEC 21,1974	
5.627	345.756	23	24	DEC 21,1974	
5.645	345.756	23	25	DEC 21,1974	
5.662	345.689	23	26	DEC 21,1974	
5.679	345.723	23	27	DEC 21,1974	
5.697	345.723	23	28	DEC 21,1974	
5.714	345.689	23	29	DEC 21,1974	
5.731	345.656	23	30	DEC 21,1974	START 5 GPM
5.749	345.723	23	31	DEC 21,1974	DOWN DP
5.766	345.756	23	32	DEC 21,1974	
5.783	345.723	23	33	DEC 21,1974	
5.801	345.656	23	34	DEC 21,1974	
5.818	345.656	23	35	DEC 21,1974	
5.835	345.756	23	36	DEC 21,1974	
5.852	345.723	23	37	DEC 21,1974	
5.870	345.689	23	38	DEC 21,1974	
5.887	345.623	23	39	DEC 21,1974	
5.904	345.689	23	40	DEC 21,1974	
5.922	345.689	23	41	DEC 21,1974	
5.939	345.689	23	42	DEC 21,1974	
5.956	345.689	23	43	DEC 21,1974	
5.974	345.689	23	44	DEC 21,1974	
5.991	345.723	23	45	DEC 21,1974	
6.008	345.656	23	46	DEC 21,1974	
6.026	345.623	23	48	DEC 21,1974	
6.043	345.656	23	49	DEC 21,1974	
6.060	345.656	23	50	DEC 21,1974	START 10 GPM
6.078	345.656	23	51	DEC 21,1974	DOWN DP
6.095	345.656	23	52	DEC 21,1974	
6.112	345.689	23	53	DEC 21,1974	
6.130	345.656	23	54	DEC 21,1974	
6.147	345.623	23	55	DEC 21,1974	
6.164	345.656	23	56	DEC 21,1974	
6.181	345.656	23	57	DEC 21,1974	
6.199	345.656	23	58	DEC 21,1974	
6.216	345.689	23	59	DEC 21,1974	

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DATE OF JOB
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GAUGE/RUN NUMBER
222 MPT-NO.2

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
6,233	345,589	00	00	DEC 22,1974	
6,251	345,689	00	01	DEC 22,1974	
6,268	345,689	00	02	DEC 22,1974	
6,285	345,589	00	03	DEC 22,1974	
6,303	345,623	00	04	DEC 22,1974	
6,320	345,656	00	05	DEC 22,1974	
6,337	345,623	00	06	DEC 22,1974	
6,355	345.589	00	07	DEC 22,1974	
6.372	345,623	00	08	DEC 22,1974	
6,389	345,656	00	09	DEC 22,1974	
6.407	345,623	00	10	DEC 22,1974	START 20 GPM
6.424	345,656	00	11	DEC 22,1974	DOWN DP
6.441	345,589	00	12	DEC 22,1974	
6.458	345,656	00	14	DEC 22,1974	
6,476	345,623	00	15	DEC 22,1974	
6,493	345,656	00	16	DEC 22,1974	
6,510	345,623	00	17	DEC 22,1974	
6,528	345,689	00	18	DEC 22,1974	
6,545	345,689	00	19	DEC 22,1974	
6,562	345,623	00	20	DEC 22,1974	
6,580	345,623	00	21	DEC 22,1974	
6,597	345,689	00	22	DEC 22,1974	
6,614	345.623	00	23	DEC 22,1974	
6,632	345,689	00	24	DEC 22,1974	
6,649	345,589	00	25	DEC 22,1974	
6.666	345,623	00	26	DEC 22,1974	
6,684	345.556	00	27	DEC 22,1974	
6,701	345,556	00	28	DEC 22,1974	
6,718	345.556	00	29	DEC 22,1974	
6,736	345,589	00	30	DEC 22,1974	START 40 GPM
6,753	345,623	00	31	DEC 22,1974	DOWN DP
6,770	345,556	00	32	DEC 22,1974	OVERFLOW START
6,787	345,589	00	33	DEC 22,1974	AT 2 GPM
6,805	345.656	00	34	DEC 22,1974	
6,822	345,589	00	35	DEC 22,1974	
6,839	345,689	00	36	DEC 22,1974	
6,857	345,689	00	37	DEC 22,1974	
6,874	345,723	00	38	DEC 22,1974	
6.891	345,689	00	39	DEC 22,1974	
6,909	345,689	00	41	DEC 22,1974	

JOB NUMBER
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DATE OF JOB
DECEMBER 21 AND 22, 1974

GAUGE/RUN NUMBER
222 MPT-NO.2

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
6.926	345.723	00	42	DEC 22,1974	
6.943	345.756	00	43	DEC 22,1974	
6.961	345.689	00	44	DEC 22,1974	
6.978	345.723	00	45	DEC 22,1974	START DECLINE
6.995	345.689	00	46	DEC 22,1974	
7.013	345.723	00	47	DEC 22,1974	
7.030	345.689	00	48	DEC 22,1974	
7.047	345.689	00	49	DEC 22,1974	
7.065	345.689	00	50	DEC 22,1974	
7.082	345.689	00	51	DEC 22,1974	
7.099	345.623	00	52	DEC 22,1974	
7.116	345.589	00	53	DEC 22,1974	
7.134	345.556	00	54	DEC 22,1974	
7.151	345.623	00	55	DEC 22,1974	
7.168	345.589	00	56	DEC 22,1974	
7.186	345.623	00	57	DEC 22,1974	
7.203	345.589	00	58	DEC 22,1974	
7.220	345.589	00	59	DEC 22,1974	
7.238	345.589	01	00	DEC 22,1974	
7.255	345.589	01	01	DEC 22,1974	
7.272	345.589	01	02	DEC 22,1974	
7.290	345.623	01	03	DEC 22,1974	
7.307	345.623	01	04	DEC 22,1974	END DECLINE
7.324	345.556	01	05	DEC 22,1974	
7.342	345.556	01	06	DEC 22,1974	
7.359	345.623	01	08	DEC 22,1974	
7.376	345.589	01	09	DEC 22,1974	
7.394	345.589	01	10	DEC 22,1974	
7.411	345.623	01	11	DEC 22,1974	
7.428	345.623	01	12	DEC 22,1974	
7.445	345.623	01	13	DEC 22,1974	
7.463	345.556	01	14	DEC 22,1974	
7.480	345.556	01	15	DEC 22,1974	
7.497	345.623	01	16	DEC 22,1974	
7.515	345.623	01	17	DEC 22,1974	
7.532	345.556	01	18	DEC 22,1974	
7.549	345.556	01	19	DEC 22,1974	
7.567	345.556	01	20	DEC 22,1974	END OF TEST

438 POINTS REPORTED THIS RUN

SG-21
1000-
1036

PRESSURE GAUGE DRILL STEM TEST SHEET

Job No. SFG-11221 Date 12-19-74 Run #3 Office CASPER

Customer ARCO ET AL Location SORGHUM GULCH

State COLORADO County/~~Parish~~ RIO BLANCO

Well SG No. 21 Field TRACT Cb

USE MILITARY TIME FOR ALL TIMES

	Time	Date	Time	Date	Time Charged
Arrive: Well/~~Dock~~	1. 1500	12/19/74	2.		
Depart: Well/~~Dock~~	1. 2300	12/20/74	2.		20 Hrs.
Gauge Start in Hole	1. 1008	12/19/74	2.		
Gauge Out of Hole	1. 2324	12/20/74	2.		25 Hrs.

No. Trips 1 Miles 45 Total Mileage 90

Top Gauge # 222 Element # 35990 Range 1400# Time Mode 1 MIN.

Btm.Gauge # 136 Element # 35336 Range 2000# Time Mode 1 MIN.

Type Tool JOHNSTON HYD. Test Depth 1000-1036 Zero Point GROUND LEVEL

Packer Depth ~~1000~~ 998 Tail Pipe Depth 1036 Top Gauge Depth 953'

Bottom Hole Temp. 74°F Atmos. Temp. 32° Bottom Gauge Depth [illegible]

TIME INFORMATION	Time	Date	PRESSURE INFORMATION	
On Bottom	1134	12/19/74	Initial Hydrostatic Mud	
Packer Set	1139	12/19/74	Initial Draw Down	
Initial Open	1145	12/19/74	Initial Build-Up	
Initial Shut-In	1151	12/19/74	Final Flow	
Start Flow	1225	12/19/74	Final Build-Up	
Final Shut-In	2131	12/19/74	Final Hydrostatic Mud	
Packer Unseated	2132	12/19/74	Mud Weight	

TIME OF SURFACE NULLS

Top Gauge 1014 1015 1016 Bottom Gauge 1008 [illegible] [illegible]

Remarks This [illegible]

Ron Mason
Operator

SP-423 II B-2073

JOB NUMBER
SPG-11221-1

DATE OF JOB
12-20-74

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

PREPARED FOR

ATLANTIC RICHFIELD COMPANY

WELL NUMBER	FEDERAL SG-21
FIELD/LEASE	TRACT C-B SORGHUM GULCH
COUNTY/PARISH	RIO BLANCO
STATE	COLORADO
TYPE OF TEST	DRILL STEM
REFERENCE ELEV	GROUND LEVEL

ADDITIONAL INFORMATION

USED GAUGE 222 WITH 1400 LB. ELEMENT

GAUGE DEPTH IS 953 FT. OUTSIDE DRILL PIPE

ABOVE PACKER

TEST INTERVAL SURFACE TO 998 FT.

PACKER DEPTH 998-1000 FT.

INITIAL HYDROSTATIC IS 357.13 PSI

FINAL HYDROSTATIC IS 359.36 PSI

593 POINTS REPORTED THIS JOB

JOB NUMBER
SPG-11221-1

DATE OF JOB
12-20-74

GAUGE/RUN NUMBER
222 RUN NO. 1 DST NO. 1

DATE OF RUN
12-20-74

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0.000	356.225	11	51	DEC 19,1974	INITIAL SHUTIN
.017	356.725	11	52	DEC 19,1974	
.033	356.858	11	53	DEC 19,1974	
.050	356.825	11	54	DEC 19,1974	
.067	356.892	11	55	DEC 19,1974	
.083	356.925	11	56	DEC 19,1974	
.100	356.858	11	57	DEC 19,1974	
.117	356.892	11	58	DEC 19,1974	
.133	356.925	11	59	DEC 19,1974	
.150	356.892	12	00	DEC 19,1974	
.167	356.892	12	01	DEC 19,1974	
.183	356.858	12	02	DEC 19,1974	
.200	356.925	12	03	DEC 19,1974	
.217	356.892	12	04	DEC 19,1974	
.233	356.992	12	05	DEC 19,1974	
.250	356.925	12	06	DEC 19,1974	
.267	356.958	12	07	DEC 19,1974	
.283	356.892	12	08	DEC 19,1974	
.300	356.892	12	09	DEC 19,1974	
.317	356.925	12	10	DEC 19,1974	
.333	356.925	12	11	DEC 19,1974	
.350	356.992	12	12	DEC 19,1974	
.367	356.892	12	13	DEC 19,1974	
.383	356.892	12	14	DEC 19,1974	
.400	356.958	12	15	DEC 19,1974	
.417	356.958	12	16	DEC 19,1974	
.433	356.958	12	17	DEC 19,1974	
.450	356.958	12	18	DEC 19,1974	
.467	356.992	12	19	DEC 19,1974	
.483	356.992	12	20	DEC 19,1974	
.500	356.992	12	21	DEC 19,1974	
.517	356.992	12	22	DEC 19,1974	
.533	357.025	12	23	DEC 19,1974	
.550	356.925	12	24	DEC 19,1974	END SHUTIN

34 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11221-1

DATE OF JOB
12-20-74

GAUGE/RUN NUMBER
222 RUN NO. 1 DST NO. 1

DATE OF RUN
12-20-74

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0.000	357.192	12	32	DEC 19,1974	OPEN TO FLOW
.017	357.225	12	33	DEC 19,1974	
.033	357.259	12	34	DEC 19,1974	
.050	357.259	12	35	DEC 19,1974	
.067	357.292	12	36	DEC 19,1974	
.083	357.359	12	37	DEC 19,1974	
.100	357.359	12	38	DEC 19,1974	
.116	357.392	12	39	DEC 19,1974	
.133	357.359	12	40	DEC 19,1974	
.150	357.325	12	41	DEC 19,1974	
.166	357.392	12	42	DEC 19,1974	
.183	357.425	12	43	DEC 19,1974	
.200	357.359	12	44	DEC 19,1974	
.216	357.359	12	45	DEC 19,1974	
.233	357.392	12	46	DEC 19,1974	
.250	357.425	12	47	DEC 19,1974	
.266	357.425	12	48	DEC 19,1974	
.283	357.392	12	49	DEC 19,1974	
.299	357.459	12	50	DEC 19,1974	
.316	357.459	12	51	DEC 19,1974	
.333	357.425	12	52	DEC 19,1974	
.349	357.425	12	53	DEC 19,1974	
.366	357.459	12	54	DEC 19,1974	
.383	357.459	12	55	DEC 19,1974	
.399	357.459	12	56	DEC 19,1974	
.416	357.459	12	57	DEC 19,1974	
.433	357.526	12	58	DEC 19,1974	
.449	357.526	12	59	DEC 19,1974	
.466	357.492	13	00	DEC 19,1974	
.482	357.492	13	01	DEC 19,1974	
.499	357.526	13	02	DEC 19,1974	
.516	357.526	13	03	DEC 19,1974	
.532	357.559	13	04	DEC 19,1974	
.549	357.592	13	05	DEC 19,1974	
.566	357.526	13	06	DEC 19,1974	
.582	357.526	13	07	DEC 19,1974	
.599	357.526	13	08	DEC 19,1974	
.616	357.526	13	09	DEC 19,1974	
.632	357.559	13	10	DEC 19,1974	
.649	357.626	13	11	DEC 19,1974	

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.665	357.559	13	12	DEC 19,1974	
.682	357.492	13	13	DEC 19,1974	
.699	357.592	13	14	DEC 19,1974	
.715	357.526	13	15	DEC 19,1974	
.732	357.559	13	16	DEC 19,1974	
.749	357.526	13	17	DEC 19,1974	
.765	357.592	13	18	DEC 19,1974	
.782	357.592	13	19	DEC 19,1974	
.799	357.559	13	20	DEC 19,1974	
.815	357.559	13	21	DEC 19,1974	
.832	357.626	13	22	DEC 19,1974	
.848	357.626	13	23	DEC 19,1974	
.865	357.592	13	24	DEC 19,1974	
.882	357.592	13	25	DEC 19,1974	
.898	357.626	13	26	DEC 19,1974	
.915	357.659	13	27	DEC 19,1974	
.932	357.659	13	28	DEC 19,1974	
.948	357.592	13	29	DEC 19,1974	
.965	357.626	13	30	DEC 19,1974	
.982	357.692	13	31	DEC 19,1974	
.998	357.659	13	32	DEC 19,1974	
1.015	357.626	13	33	DEC 19,1974	
1.031	357.692	13	34	DEC 19,1974	
1.048	357.726	13	35	DEC 19,1974	
1.065	357.692	13	36	DEC 19,1974	
1.081	357.692	13	37	DEC 19,1974	
1.098	357.692	13	38	DEC 19,1974	
1.115	357.692	13	39	DEC 19,1974	
1.131	357.726	13	40	DEC 19,1974	
1.148	357.692	13	41	DEC 19,1974	
1.165	357.659	13	42	DEC 19,1974	
1.181	357.726	13	43	DEC 19,1974	
1.198	357.659	13	44	DEC 19,1974	
1.214	357.659	13	45	DEC 19,1974	
1.231	357.692	13	46	DEC 19,1974	
1.248	357.692	13	47	DEC 19,1974	
1.264	357.692	13	48	DEC 19,1974	
1.281	357.726	13	49	DEC 19,1974	
1.298	357.726	13	50	DEC 19,1974	
1.314	357.759	13	51	DEC 19,1974	

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1.331	357.659	13 52	DEC 19,1974	
1,348	357,726	13 53	DEC 19,1974	
1,364	357.726	13 54	DEC 19,1974	
1.381	357,759	13 55	DEC 19,1974	END RECOVERY
1,397	357,726	13 56	DEC 19,1974	
1.414	357,726	13 57	DEC 19,1974	
1,431	357,759	13 58	DEC 19,1974	
1.447	357,792	13 59	DEC 19,1974	
1,464	357,726	14 00	DEC 19,1974	
1.481	357.759	14 01	DEC 19,1974	
1.497	357,792	14 02	DEC 19,1974	
1,514	357,826	14 03	DEC 19,1974	
1,531	357,726	14 04	DEC 19,1974	
1.547	357.826	14 05	DEC 19,1974	
1,564	357.826	14 06	DEC 19,1974	
1,580	357.859	14 07	DEC 19,1974	
1.597	357.859	14 08	DEC 19,1974	
1,614	357.926	14 09	DEC 19,1974	
1,630	357.859	14 10	DEC 19,1974	
1,647	357.859	14 11	DEC 19,1974	
1,664	357,859	14 12	DEC 19,1974	
1.680	357,859	14 13	DEC 19,1974	
1.697	357,959	14 14	DEC 19,1974	
1.714	357.959	14 15	DEC 19,1974	
1.730	357,893	14 16	DEC 19,1974	
1.747	357,893	14 17	DEC 19,1974	
1,764	357,959	14 18	DEC 19,1974	
1,780	357,959	14 19	DEC 19,1974	
1,797	357.893	14 20	DEC 19,1974	
1.813	357,859	14 21	DEC 19,1974	
1,830	357,959	14 22	DEC 19,1974	
1.847	357.959	14 23	DEC 19,1974	
1.863	357,959	14 24	DEC 19,1974	
1,880	357,959	14 25	DEC 19,1974	
1,897	357.926	14 26	DEC 19,1974	
1.913	357,959	14 27	DEC 19,1974	
1.930	358.026	14 28	DEC 19,1974	
1.947	357,959	14 29	DEC 19,1974	
1,963	357,926	14 30	DEC 19,1974	
1,980	358,026	14 31	DEC 19,1974	

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		HR	MIN		
1.996	357.959	14	32	DEC 19,1974	
2.013	358.026	14	33	DEC 19,1974	
2.030	357.959	14	34	DEC 19,1974	
2.046	358.026	14	35	DEC 19,1974	
2.063	357.959	14	36	DEC 19,1974	
2.080	357.993	14	37	DEC 19,1974	
2.096	357.993	14	38	DEC 19,1974	
2.113	358.026	14	39	DEC 19,1974	
2.130	358.026	14	40	DEC 19,1974	
2.146	357.959	14	41	DEC 19,1974	
2.163	358.059	14	42	DEC 19,1974	
2.179	358.026	14	43	DEC 19,1974	
2.196	358.026	14	44	DEC 19,1974	
2.213	357.993	14	45	DEC 19,1974	
2.229	358.026	14	46	DEC 19,1974	
2.246	358.093	14	47	DEC 19,1974	
2.263	358.026	14	48	DEC 19,1974	
2.279	358.026	14	49	DEC 19,1974	
2.296	358.059	14	50	DEC 19,1974	
2.313	358.126	14	51	DEC 19,1974	
2.329	358.093	14	52	DEC 19,1974	
2.346	358.059	14	53	DEC 19,1974	
2.362	358.093	14	54	DEC 19,1974	
2.379	358.126	14	55	DEC 19,1974	
2.396	358.093	14	56	DEC 19,1974	
2.412	358.093	14	57	DEC 19,1974	
2.429	358.126	14	58	DEC 19,1974	
2.446	358.193	14	59	DEC 19,1974	
2.462	358.126	15	00	DEC 19,1974	
2.479	358.093	15	01	DEC 19,1974	
2.496	358.126	15	02	DEC 19,1974	
2.512	358.126	15	03	DEC 19,1974	
2.529	358.159	15	04	DEC 19,1974	
2.545	358.159	15	05	DEC 19,1974	
2.562	358.159	15	06	DEC 19,1974	
2.579	358.159	15	07	DEC 19,1974	
2.595	358.126	15	08	DEC 19,1974	
2.612	358.159	15	09	DEC 19,1974	
2.629	358.193	15	10	DEC 19,1974	
2.645	358.193	15	11	DEC 19,1974	

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DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
2.662	358.159	15	12	DEC 19,1974	
2.679	358.159	15	13	DEC 19,1974	
2.695	358.193	15	14	DEC 19,1974	
2.712	358.226	15	15	DEC 19,1974	
2.728	358.159	15	16	DEC 19,1974	
2.745	358.159	15	17	DEC 19,1974	
2.762	358.159	15	18	DEC 19,1974	
2.778	358.193	15	19	DEC 19,1974	
2.795	358.193	15	20	DEC 19,1974	
2.812	358.193	15	21	DEC 19,1974	
2.828	358.226	15	22	DEC 19,1974	
2.845	358.226	15	23	DEC 19,1974	
2.862	358.193	15	24	DEC 19,1974	
2.878	358.193	15	25	DEC 19,1974	
2.895	358.259	15	26	DEC 19,1974	
2.911	358.226	15	27	DEC 19,1974	
2.928	358.293	15	28	DEC 19,1974	
2.945	358.193	15	29	DEC 19,1974	
2.961	358.193	15	30	DEC 19,1974	
2.978	358.226	15	31	DEC 19,1974	
2.995	358.226	15	32	DEC 19,1974	
3.011	358.193	15	33	DEC 19,1974	
3.028	358.226	15	34	DEC 19,1974	
3.045	358.226	15	35	DEC 19,1974	
3.061	358.226	15	36	DEC 19,1974	
3.078	358.226	15	37	DEC 19,1974	
3.094	358.259	15	38	DEC 19,1974	
3.111	358.293	15	39	DEC 19,1974	
3.128	358.293	15	40	DEC 19,1974	
3.144	358.293	15	41	DEC 19.1974	
3.161	358.259	15	42	DEC 19,1974	
3.178	358.293	15	43	DEC 19,1974	
3.194	358.293	15	44	DEC 19,1974	
3.211	358.226	15	45	DEC 19,1974	
3.228	358.326	15	46	DEC 19,1974	
3.244	358.326	15	47	DEC 19,1974	
3.261	358.293	15	48	DEC 19,1974	
3.277	358.259	15	49	DEC 19,1974	
3.294	358.360	15	50	DEC 19,1974	
3.311	358.360	15	51	DEC 19,1974	

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3.327	358.360	15	52	DEC 19,1974	START AIR JET
3.344	358.326	15	53	DEC 19,1974	
3.361	358.393	15	54	DEC 19,1974	
3.377	358.360	15	55	DEC 19,1974	
3.394	358.326	15	56	DEC 19,1974	
3.411	358.326	15	57	DEC 19,1974	
3.427	358.360	15	58	DEC 19,1974	
3.444	358.360	15	59	DEC 19,1974	
3.460	358.360	16	00	DEC 19,1974	
3.477	358.360	16	01	DEC 19,1974	
3.494	358.360	16	02	DEC 19,1974	
3.510	358.393	16	03	DEC 19,1974	
3.527	358.393	16	04	DEC 19,1974	
3.544	358.393	16	05	DEC 19,1974	
3.560	358.393	16	06	DEC 19,1974	
3.577	358.426	16	07	DEC 19,1974	
3.594	358.360	16	08	DEC 19,1974	
3.610	358.360	16	09	DEC 19,1974	
3.627	358.360	16	10	DEC 19,1974	
3.643	358.426	16	11	DEC 19,1974	
3.660	358.393	16	12	DEC 19,1974	
3.677	358.393	16	13	DEC 19,1974	
3.693	358.393	16	14	DEC 19,1974	
3.710	358.393	16	15	DEC 19,1974	
3.727	358.360	16	16	DEC 19,1974	
3.743	358.393	16	17	DEC 19,1974	
3.760	358.426	16	18	DEC 19,1974	
3.777	358.426	16	19	DEC 19,1974	
3.793	358.426	16	20	DEC 19,1974	
3.810	358.360	16	21	DEC 19,1974	
3.826	358.393	16	22	DEC 19,1974	
3.843	358.426	16	23	DEC 19,1974	
3.860	358.393	16	24	DEC 19,1974	
3.876	358.393	16	25	DEC 19,1974	
3.893	358.426	16	26	DEC 19,1974	
3.910	358.393	16	27	DEC 19,1974	
3.926	358.426	16	28	DEC 19,1974	
3.943	358.460	16	29	DEC 19,1974	
3.960	358.460	16	30	DEC 19,1974	
3.976	358.426	16	31	DEC 19,1974	

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DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
3,993	358,426	16	32	DEC 19,1974	
4,009	358.393	16	33	DEC 19,1974	
4,026	358,426	16	34	DEC 19,1974	
4,043	358,460	16	35	DEC 19,1974	
4,059	358.426	16	36	DEC 19,1974	
4,076	358,460	16	37	DEC 19,1974	
4,093	358,493	16	38	DEC 19,1974	
4,109	358.493	16	39	DEC 19,1974	
4,126	358.460	16	40	DEC 19,1974	
4,143	358.426	16	41	DEC 19,1974	
4,159	358,493	16	42	DEC 19,1974	
4,176	358,460	16	43	DEC 19,1974	
4,192	358,460	16	44	DEC 19,1974	
4,209	358,426	16	45	DEC 19,1974	
4,226	358,426	16	46	DEC 19,1974	
4,242	358.426	16	47	DEC 19,1974	
4,259	358,393	16	48	DEC 19,1974	
4,276	358,393	16	49	DEC 19,1974	
4,292	358,493	16	50	DEC 19,1974	
4,309	358,460	16	51	DEC 19,1974	
4,326	358,460	16	52	DEC 19,1974	
4,342	358.460	16	53	DEC 19,1974	
4,359	358,460	16	54	DEC 19,1974	
4,375	358,493	16	55	DEC 19,1974	
4,392	358.460	16	56	DEC 19,1974	
4,409	358,426	16	57	DEC 19,1974	
4,425	358,493	16	58	DEC 19,1974	
4,442	358,460	16	59	DEC 19,1974	
4,459	358,426	17	00	DEC 19,1974	
4,475	358,426	17	01	DEC 19,1974	
4,492	358,493	17	02	DEC 19,1974	
4,509	358,493	17	03	DEC 19,1974	
4,525	358,493	17	04	DEC 19,1974	
4,542	358,460	17	05	DEC 19,1974	
4,558	358,526	17	06	DEC 19,1974	
4,575	358,526	17	07	DEC 19,1974	
4,592	358,460	17	08	DEC 19,1974	
4,608	358,460	17	09	DEC 19,1974	
4,625	358,560	17	10	DEC 19,1974	
4,642	358,526	17	11	DEC 19,1974	END AIR JET

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4.658	358.526	17	11	DEC 19,1974	
4.675	358.493	17	12	DEC 19,1974	
4.692	358.560	17	13	DEC 19,1974	
4.708	358.526	17	14	DEC 19,1974	
4.725	358.493	17	15	DEC 19,1974	
4.741	358.526	17	16	DEC 19,1974	
4.758	358.560	17	17	DEC 19,1974	
4.775	358.560	17	18	DEC 19,1974	
4.791	358.526	17	19	DEC 19,1974	
4.808	358.526	17	20	DEC 19,1974	
4.825	358.526	17	21	DEC 19,1974	
4.841	358.560	17	22	DEC 19,1974	
4.858	358.593	17	23	DEC 19,1974	
4.875	358.526	17	24	DEC 19,1974	
4.891	358.560	17	25	DEC 19,1974	
4.908	358.593	17	26	DEC 19,1974	
4.924	358.560	17	27	DEC 19,1974	
4.941	358.560	17	28	DEC 19,1974	
4.958	358.560	17	29	DEC 19,1974	
4.974	358.560	17	30	DEC 19,1974	
4.991	358.560	17	31	DEC 19,1974	
5.008	358.593	17	32	DEC 19,1974	
5.024	358.626	17	33	DEC 19,1974	
5.041	358.693	17	34	DEC 19,1974	
5.058	358.626	17	35	DEC 19,1974	
5.074	358.626	17	36	DEC 19,1974	
5.091	358.626	17	37	DEC 19,1974	
5.107	358.660	17	38	DEC 19,1974	
5.124	358.660	17	39	DEC 19,1974	
5.141	358.660	17	40	DEC 19,1974	
5.157	358.626	17	41	DEC 19,1974	
5.174	358.660	17	42	DEC 19,1974	
5.191	358.660	17	43	DEC 19,1974	
5.207	358.693	17	44	DEC 19,1974	
5.224	358.693	17	45	DEC 19,1974	
5.241	358.693	17	46	DEC 19,1974	
5.257	358.660	17	47	DEC 19,1974	
5.274	358.660	17	48	DEC 19,1974	
5.291	358.727	17	49	DEC 19,1974	
5.307	358.727	17	50	DEC 19,1974	

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5.324	358.693	17	51	DEC 19,1974	
5.340	358.727	17	52	DEC 19,1974	
5.357	358.727	17	53	DEC 19,1974	
5.374	358.760	17	54	DEC 19,1974	
5.390	358.660	17	55	DEC 19,1974	
5.407	358.693	17	56	DEC 19,1974	
5.424	358.727	17	57	DEC 19,1974	
5.440	358.727	17	58	DEC 19,1974	
5.457	358.760	17	59	DEC 19,1974	
5.474	358.693	18	00	DEC 19,1974	
5.490	358.760	18	01	DEC 19,1974	
5.507	358.760	18	02	DEC 19,1974	
5.523	358.727	18	03	DEC 19,1974	
5.540	358.693	18	04	DEC 19,1974	
5.557	358.793	18	05	DEC 19,1974	
5.573	358.793	18	06	DEC 19,1974	
5.590	358.760	18	07	DEC 19,1974	
5.607	358.760	18	08	DEC 19,1974	
5.623	358.793	18	09	DEC 19,1974	
5.640	358.827	18	10	DEC 19,1974	
5.657	358.827	18	11	DEC 19,1974	
5.673	358.827	18	12	DEC 19,1974	
5.690	358.827	18	13	DEC 19,1974	
5.706	358.860	18	14	DEC 19,1974	
5.723	358.827	18	15	DEC 19,1974	
5.740	358.827	18	16	DEC 19,1974	
5.756	358.860	18	17	DEC 19,1974	
5.773	358.860	18	18	DEC 19,1974	
5.790	358.793	18	19	DEC 19,1974	
5.806	358.827	18	20	DEC 19,1974	
5.823	358.860	18	21	DEC 19,1974	
5.840	358.860	18	22	DEC 19,1974	
5.856	358.860	18	23	DEC 19,1974	
5.873	358.860	18	24	DEC 19,1974	
5.889	358.793	18	25	DEC 19,1974	
5.906	358.893	18	26	DEC 19,1974	
5.923	358.860	18	27	DEC 19,1974	
5.939	358.927	18	28	DEC 19,1974	
5.956	358.860	18	29	DEC 19,1974	
5.973	358.860	18	30	DEC 19,1974	

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5.989	358.893	18	31	DEC 19,1974	
6.006	358.927	18	32	DEC 19,1974	
6.023	358.893	18	33	DEC 19,1974	
6.039	358.860	18	34	DEC 19,1974	
6.056	358.893	18	35	DEC 19,1974	
6.072	358.927	18	36	DEC 19,1974	
6.089	358.893	18	37	DEC 19,1974	
6.106	358.893	18	38	DEC 19,1974	
6.122	358.927	18	39	DEC 19,1974	
6.139	358.960	18	40	DEC 19,1974	
6.156	358.927	18	41	DEC 19,1974	
6.172	359.127	18	42	DEC 19,1974	INJECT 21 GPM
6.189	359.827	18	43	DEC 19,1974	DOWN ANNULUS
6.206	360.128	18	44	DEC 19,1974	
6.222	360.361	18	45	DEC 19,1974	
6.239	360.328	18	46	DEC 19,1974	
6.255	360.461	18	47	DEC 19,1974	
6.272	360.495	18	48	DEC 19,1974	
6.289	360.561	18	49	DEC 19,1974	
6.305	360.595	18	50	DEC 19,1974	
6.322	360.628	18	51	DEC 19,1974	
6.339	360.661	18	52	DEC 19,1974	
6.355	360.695	18	53	DEC 19,1974	
6.372	360.695	18	54	DEC 19,1974	
6.389	360.695	18	55	DEC 19,1974	
6.405	360.728	18	56	DEC 19,1974	
6.422	360.761	18	57	DEC 19,1974	
6.438	360.795	18	58	DEC 19,1974	
6.455	360.828	18	59	DEC 19,1974	
6.472	360.828	19	00	DEC 19,1974	
6.488	360.862	19	01	DEC 19,1974	
6.505	360.862	19	02	DEC 19,1974	INJECT 39 GPM
6.522	361.462	19	03	DEC 19,1974	DOWN ANNULUS
6.538	361.696	19	04	DEC 19,1974	
6.555	362.196	19	05	DEC 19,1974	
6.572	362.363	19	06	DEC 19,1974	
6.588	362.496	19	07	DEC 19,1974	
6.605	362.563	19	08	DEC 19,1974	
6.621	362.630	19	09	DEC 19,1974	
6.638	362.663	19	10	DEC 19,1974	

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PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
6.655	362.730	19	11	DEC 19,1974	
6.671	362.830	19	12	DEC 19,1974	
6.688	362.830	19	13	DEC 19,1974	
6.705	362.863	19	14	DEC 19,1974	
6.721	362.897	19	15	DEC 19,1974	
6.738	363.030	19	16	DEC 19,1974	
6.755	362.997	19	17	DEC 19,1974	
6.771	362.930	19	18	DEC 19,1974	
6.788	362.997	19	19	DEC 19,1974	
6.804	363.030	19	20	DEC 19,1974	
6.821	363.030	19	21	DEC 19,1974	
6.838	362.997	19	22	DEC 19,1974	INJECT 61 GPM
6.854	364.398	19	23	DEC 19,1974	DOWN ANNULUS
6.871	365.232	19	24	DEC 19,1974	
6.888	365.532	19	25	DEC 19,1974	
6.904	365.665	19	26	DEC 19,1974	
6.921	365.899	19	27	DEC 19,1974	
6.938	366.032	19	28	DEC 19,1974	
6.954	366.099	19	29	DEC 19,1974	
6.971	366.132	19	30	DEC 19,1974	
6.987	366.299	19	31	DEC 19,1974	
7.004	366.366	19	32	DEC 19,1974	
7.021	366.399	19	33	DEC 19,1974	
7.037	366.399	19	34	DEC 19,1974	
7.054	366.399	19	35	DEC 19,1974	
7.071	366.499	19	36	DEC 19,1974	
7.087	366.533	19	37	DEC 19,1974	
7.104	366.533	19	38	DEC 19,1974	
7.121	366.566	19	39	DEC 19,1974	
7.137	366.566	19	40	DEC 19,1974	
7.154	364.031	19	41	DEC 19,1974	
7.170	361.996	19	42	DEC 19,1974	
7.187	361.128	19	43	DEC 19,1974	
7.204	360.728	19	44	DEC 19,1974	
7.220	360.395	19	45	DEC 19,1974	
7.237	360.228	19	46	DEC 19,1974	
7.254	360.094	19	47	DEC 19,1974	
7.270	359.994	19	48	DEC 19,1974	
7.287	359.861	19	49	DEC 19,1974	
7.304	359.794	19	50	DEC 19,1974	

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SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME		DATE	COMMENTS
		HR	MIN		
7.320	359.727	19	51	DEC 19,1974	
7.337	359.694	19	52	DEC 19,1974	
7.353	359.661	19	53	DEC 19,1974	
7.370	359.627	19	54	DEC 19,1974	
7.387	359.561	19	55	DEC 19,1974	
7.403	359.561	19	56	DEC 19,1974	
7.420	359.594	19	57	DEC 19,1974	
7.437	359.494	19	58	DEC 19,1974	
7.453	359.460	19	59	DEC 19,1974	
7.470	359.527	20	00	DEC 19,1974	
7.487	359.460	20	01	DEC 19,1974	
7.503	359.460	20	02	DEC 19,1974	
7.520	359.427	20	03	DEC 19,1974	
7.536	359.427	20	04	DEC 19,1974	
7.553	359.427	20	05	DEC 19,1974	
7.570	359.394	20	06	DEC 19,1974	
7.586	359.360	20	07	DEC 19,1974	
7.603	359.394	20	08	DEC 19,1974	
7.620	359.394	20	09	DEC 19,1974	
7.636	359.327	20	10	DEC 19,1974	
7.653	359.360	20	11	DEC 19,1974	
7.670	359.427	20	12	DEC 19,1974	
7.686	359.360	20	13	DEC 19,1974	2 GPM DOWN
7.703	359.327	20	14	DEC 19,1974	DRILL PIPE
7.719	359.327	20	15	DEC 19,1974	
7.736	359.360	20	16	DEC 19,1974	
7.753	359.360	20	17	DEC 19,1974	
7.769	359.294	20	18	DEC 19,1974	
7.786	359.294	20	19	DEC 19,1974	
7.803	359.294	20	20	DEC 19,1974	
7.819	359.327	20	21	DEC 19,1974	
7.836	359.294	20	22	DEC 19,1974	
7.853	359.327	20	23	DEC 19,1974	
7.869	359.327	20	24	DEC 19,1974	
7.886	359.294	20	25	DEC 19,1974	
7.902	359.294	20	26	DEC 19,1974	
7.919	359.327	20	27	DEC 19,1974	
7.936	359.360	20	28	DEC 19,1974	
7.952	359.327	20	29	DEC 19,1974	
7.969	359.327	20	30	DEC 19,1974	

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DELTA TIME	PRESSURE (PSI)	TIME		DATE	COMMENTS
		HR	MIN		
7.986	359.327	20	31	DEC 19,1974	
8.002	359.394	20	32	DEC 19,1974	
8.019	359.394	20	33	DEC 19,1974	5 GPM DOWN
8.036	359.327	20	34	DEC 19,1974	DRILL PIPE
8.052	359.360	20	35	DEC 19,1974	
8.069	359.394	20	36	DEC 19,1974	
8.085	359.294	20	37	DEC 19,1974	
8.102	359.327	20	38	DEC 19,1974	
8.119	359.327	20	39	DEC 19,1974	
8.135	359.327	20	40	DEC 19,1974	
8.152	359.327	20	41	DEC 19,1974	
8.169	359.327	20	42	DEC 19,1974	
8.185	359.327	20	43	DEC 19,1974	
8.202	359.327	20	44	DEC 19,1974	
8.219	359.327	20	45	DEC 19,1974	
8.235	359.327	20	46	DEC 19,1974	
8.252	359.394	20	47	DEC 19,1974	
8.268	359.394	20	48	DEC 19,1974	
8.285	359.327	20	49	DEC 19,1974	
8.302	359.327	20	50	DEC 19,1974	
8.318	359.360	20	51	DEC 19,1974	
8.335	359.360	20	52	DEC 19,1974	
8.352	359.360	20	53	DEC 19,1974	11 GPM DOWN
8.368	359.360	20	54	DEC 19,1974	DRILL PIPE
8.385	359.360	20	55	DEC 19,1974	
8.402	359.427	20	56	DEC 19,1974	
8.418	359.394	20	57	DEC 19,1974	
8.435	359.394	20	58	DEC 19,1974	
8.451	359.427	20	59	DEC 19,1974	
8.468	359.427	21	00	DEC 19,1974	
8.485	359.427	21	01	DEC 19,1974	
8.501	359.460	21	02	DEC 19,1974	
8.518	359.594	21	03	DEC 19,1974	OVERFLOW 1 GPM
8.535	359.627	21	04	DEC 19,1974	
8.551	359.627	21	05	DEC 19,1974	
8.568	359.661	21	06	DEC 19,1974	
8.585	359.727	21	07	DEC 19,1974	
8.601	359.727	21	08	DEC 19,1974	
8.618	359.727	21	09	DEC 19,1974	
8.634	359.727	21	10	DEC 19,1974	

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SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
8,651	359,727	21	11	DEC 19,1974	
8,668	359,694	21	12	DEC 19,1974	
8,684	359,561	21	13	DEC 19,1974	DECLINE
8,701	359,494	21	14	DEC 19,1974	
8.718	359.527	21	15	DEC 19,1974	
8,734	359,527	21	16	DEC 19,1974	
8,751	359.427	21	17	DEC 19,1974	
8.768	359,394	21	18	DEC 19,1974	
8,784	359.460	21	19	DEC 19,1974	
8,801	359.460	21	20	DEC 19,1974	
8,818	359,394	21	21	DEC 19,1974	
8.834	359,394	21	22	DEC 19,1974	
8.851	359,494	21	23	DEC 19,1974	
8,867	359.427	21	24	DEC 19,1974	
8,884	359,460	21	25	DEC 19,1974	
8,901	359,460	21	26	DEC 19,1974	
8,917	359,460	21	27	DEC 19,1974	
8.934	359.460	21	28	DEC 19,1974	
8,951	359.427	21	29	DEC 19,1974	
8,967	359,427	21	30	DEC 19,1974	
8,984	359,427	21	31	DEC 19,1974	
9,001	359,460	21	32	DEC 19,1974	
9,017	359,427	21	33	DEC 19,1974	
9,034	359,427	21	34	DEC 19,1974	
9,050	359,427	21	35	DEC 19,1974	
9.067	359.460	21	36	DEC 19,1974	
9,084	359,427	21	37	DEC 19,1974	
9,100	359,394	21	38	DEC 19,1974	
9,117	359,394	21	39	DEC 19,1974	
9,134	359.427	21	40	DEC 19,1974	
9,150	359.394	21	41	DEC 19,1974	
9,167	359.394	21	42	DEC 19,1974	
9,184	359.394	21	43	DEC 19,1974	
9,200	359,394	21	44	DEC 19,1974	
9.217	359.427	21	45	DEC 19,1974	
9,233	359,360	21	46	DEC 19,1974	
9,250	359,494	21	47	DEC 19,1974	
9,267	359,394	21	48	DEC 19,1974	
9,283	359,360	21	49	DEC 19,1974	END TEST

559 POINTS REPORTED THIS RUN

JOB NUMBER
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SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

PREPARED FOR

ATLANTIC RICHFIELD COMPANY

WELL NUMBER	FEDERAL SG-21
FIELD/LEASE	TRACT C-B SORGHUM GULCH
COUNTY/PARISH	RIO BLANCO
STATE	COLORADO
TYPE OF TEST	DRILL STEM
REFERENCE ELEV	GROUND LEVEL

ADDITIONAL INFORMATION

USED GAUGE 136 WITH 2000 LB. ELEMENT

GAUGE DEPTH IS 1029 FT. INSIDE DRILL PIPE

BELOW PACKER

TEST INTERVAL 1000 FT. TO 1036 FT.

PACKER DEPTH 998-1000 FT.

INITIAL HYDROSTATIC IS 391.84 PSI

FINAL HYDROSTATIC IS 394.26 PSI

593 POINTS REPORTED THIS JOB

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JOB NUMBER                                                                    DATE OF JOB
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GAUGE/RUN NUMBER                                                              DATE OF RUN
136   RUN = 1   DST =1                                                           12-20-74

                                          SPERRY-SUN
                          PRECISION SUBSURFACE PRESSURE GAUGE REPORT

    DELTA    PRESSURE                  TIME      DATE                 COMMENTS
    TIME      (PSI)                   HR MIN

    0.000    127.285                  11   51 DEC 19,1974   INITIAL SHUTIN
     .017    186.452                  11   52 DEC 19,1974
     .033    389.927                  11   53 DEC 19,1974
     .050    358.272                  11   54 DEC 19,1974
     .067    361.670                  11   55 DEC 19,1974
     .083    364.231                  11   56 DEC 19,1974
     .100    366.512                  11   57 DEC 19,1974
     .117    368.374                  11   58 DEC 19,1974
     .133    370.189                  11   59 DEC 19,1974
     .150    371.679                  12   00 DEC 19,1974
     .167    373.075                  12   01 DEC 19,1974
     .183    374.425                  12   02 DEC 19,1974
     .200    375.589                  12   03 DEC 19,1974
     .217    376.613                  12   04 DEC 19,1974
     .233    377.591                  12   05 DEC 19,1974
     .250    378.568                  12   06 DEC 19,1974
     .267    379.360                  12   07 DEC 19,1974
     .283    380.105                  12   08 DEC 19,1974
     .300    380.756                  12   09 DEC 19,1974
     .317    381.362                  12   10 DEC 19,1974
     .333    382.013                  12   11 DEC 19,1974
     .350    382.525                  12   12 DEC 19,1974
     .367    382.944                  12   13 DEC 19,1974
     .383    383.456                  12   14 DEC 19,1974
     .400    383.875                  12   15 DEC 19,1974
     .417    384.248                  12   16 DEC 19,1974
     .433    384.620                  12   17 DEC 19,1974
     .450    384.946                  12   18 DEC 19,1974
     .467    385.225                  12   19 DEC 19,1974
     .483    385.551                  12   20 DEC 19,1974
     .500    385.737                  12   21 DEC 19,1974
     .517    386.063                  12   22 DEC 19,1974
     .533    386.249                  12   23 DEC 19,1974
     .550    386.482                  12   24 DEC 19,1974   END SHUT IN
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                         34 POINTS REPORTED THIS RUN

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JOB NUMBER
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SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR MIN	DATE	COMMENTS
0.000	67.281	12 32	DEC 19,1974	OPEN TO FLOW
.017	185.381	12 33	DEC 19,1974	
.033	210.239	12 34	DEC 19,1974	
.050	234.586	12 35	DEC 19,1974	
.067	252.042	12 36	DEC 19,1974	
.083	271.920	12 37	DEC 19,1974	
.100	297.709	12 38	DEC 19,1974	
.116	307.718	12 39	DEC 19,1974	
.133	315.818	12 40	DEC 19,1974	
.150	322.428	12 41	DEC 19,1974	
.166	327.828	12 42	DEC 19,1974	
.183	332.343	12 43	DEC 19,1974	
.200	335.974	12 44	DEC 19,1974	
.216	339.093	12 45	DEC 19,1974	
.233	344.400	12 46	DEC 19,1974	
.250	346.588	12 47	DEC 19,1974	
.266	348.636	12 48	DEC 19,1974	
.283	350.591	12 49	DEC 19,1974	
.299	352.360	12 50	DEC 19,1974	
.316	354.036	12 51	DEC 19,1974	
.333	355.758	12 52	DEC 19,1974	
.349	357.248	12 53	DEC 19,1974	
.366	358.691	12 54	DEC 19,1974	
.383	360.041	12 55	DEC 19,1974	
.399	361.438	12 56	DEC 19,1974	
.416	362.648	12 57	DEC 19,1974	
.433	363.858	12 58	DEC 19,1974	
.449	365.022	12 59	DEC 19,1974	
.466	366.093	13 00	DEC 19,1974	
.482	367.024	13 01	DEC 19,1974	
.499	368.048	13 02	DEC 19,1974	
.516	368.979	13 03	DEC 19,1974	
.532	369.817	13 04	DEC 19,1974	
.549	370.655	13 05	DEC 19,1974	
.566	371.446	13 06	DEC 19,1974	
.582	372.191	13 07	DEC 19,1974	
.599	372.936	13 08	DEC 19,1974	
.616	373.588	13 09	DEC 19,1974	
.632	374.239	13 10	DEC 19,1974	
.649	374.844	13 11	DEC 19,1974	

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DELTA TIME	PRESSURE (PSI)	TIME HR	TIME MIN	DATE	COMMENTS
.665	375.450	13	12	DEC 19,1974	
.682	376.008	13	13	DEC 19,1974	
.699	376.567	13	14	DEC 19,1974	
.715	377.032	13	15	DEC 19,1974	
.732	377.591	13	16	DEC 19,1974	
.749	378.056	13	17	DEC 19,1974	
.765	378.568	13	18	DEC 19,1974	
.782	378.941	13	19	DEC 19,1974	
.799	379.406	13	20	DEC 19,1974	
.815	379.732	13	21	DEC 19,1974	
.832	380.151	13	22	DEC 19,1974	
.848	380.570	13	23	DEC 19,1974	
.865	380.849	13	24	DEC 19,1974	
.882	381.222	13	25	DEC 19,1974	
.898	381.548	13	26	DEC 19,1974	
.915	381.827	13	27	DEC 19,1974	
.932	382.199	13	28	DEC 19,1974	
.948	382.479	13	29	DEC 19,1974	
.965	382.712	13	30	DEC 19,1974	
.982	382.944	13	31	DEC 19,1974	
.998	383.224	13	32	DEC 19,1974	
1.015	383.456	13	33	DEC 19,1974	
1.031	383.782	13	34	DEC 19,1974	
1.048	384.015	13	35	DEC 19,1974	
1.065	384.155	13	36	DEC 19,1974	
1.081	384.294	13	37	DEC 19,1974	
1.098	384.527	13	38	DEC 19,1974	
1.115	384.713	13	39	DEC 19,1974	
1.131	384.899	13	40	DEC 19,1974	
1.148	385.039	13	41	DEC 19,1974	
1.165	385.179	13	42	DEC 19,1974	
1.181	385.365	13	43	DEC 19,1974	
1.198	385.505	13	44	DEC 19,1974	
1.214	385.644	13	45	DEC 19,1974	
1.231	385.784	13	46	DEC 19,1974	
1.248	385.924	13	47	DEC 19,1974	
1.264	386.110	13	48	DEC 19,1974	
1.281	386.203	13	49	DEC 19,1974	
1.298	386.343	13	50	DEC 19,1974	
1.314	386.482	13	51	DEC 19,1974	

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DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
1.331	386.575	13	52	DEC 19,1974	
1.348	386.668	13	53	DEC 19,1974	
1.364	386.808	13	54	DEC 19,1974	
1.381	386.808	13	55	DEC 19,1974	END RECOVERY
1.397	386.808	13	56	DEC 19,1974	
1.414	386.994	13	57	DEC 19,1974	
1.431	387.087	13	58	DEC 19,1974	
1.447	387.180	13	59	DEC 19,1974	
1.464	387.227	14	00	DEC 19,1974	
1.481	387.367	14	01	DEC 19,1974	
1.497	387.413	14	02	DEC 19,1974	
1.514	387.506	14	03	DEC 19,1974	
1.531	387.553	14	04	DEC 19,1974	
1.547	387.646	14	05	DEC 19,1974	
1.564	387.693	14	06	DEC 19,1974	
1.580	387.832	14	07	DEC 19,1974	
1.597	387.879	14	08	DEC 19,1974	
1.614	388.018	14	09	DEC 19,1974	
1.630	387.879	14	10	DEC 19,1974	
1.647	388.018	14	11	DEC 19,1974	
1.664	388.158	14	12	DEC 19,1974	
1.680	388.205	14	13	DEC 19,1974	
1.697	388.251	14	14	DEC 19,1974	
1.714	388.251	14	15	DEC 19,1974	
1.730	388.344	14	16	DEC 19,1974	
1.747	388.344	14	17	DEC 19,1974	
1.764	388.437	14	18	DEC 19,1974	
1.780	388.484	14	19	DEC 19,1974	
1.797	388.530	14	20	DEC 19,1974	
1.813	388.530	14	21	DEC 19,1974	
1.830	388.530	14	22	DEC 19,1974	
1.847	388.577	14	23	DEC 19,1974	
1.863	388.670	14	24	DEC 19,1974	
1.880	388.670	14	25	DEC 19,1974	
1.897	388.670	14	26	DEC 19,1974	
1.913	388.763	14	27	DEC 19,1974	
1.930	388.763	14	28	DEC 19,1974	
1.947	388.856	14	29	DEC 19,1974	
1.963	389.089	14	30	DEC 19,1974	
1.980	389.461	14	31	DEC 19,1974	

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DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
1.996	389.229	14	32	DEC 19,1974	
2.013	389.461	14	33	DEC 19,1974	
2.030	389.368	14	34	DEC 19,1974	
2.046	389.555	14	35	DEC 19,1974	
2.063	389.461	14	36	DEC 19,1974	
2.080	389.601	14	37	DEC 19,1974	
2.096	389.880	14	38	DEC 19,1974	
2.113	389.694	14	39	DEC 19,1974	
2.130	389.974	14	40	DEC 19,1974	
2.146	389.741	14	41	DEC 19,1974	
2.163	389.880	14	42	DEC 19,1974	
2.179	389.694	14	43	DEC 19,1974	
2.196	390.067	14	44	DEC 19,1974	
2.213	390.253	14	45	DEC 19,1974	
2.229	390.113	14	46	DEC 19,1974	
2.246	390.253	14	47	DEC 19,1974	
2.263	390.206	14	48	DEC 19,1974	
2.279	390.346	14	49	DEC 19,1974	
2.296	390.299	14	50	DEC 19,1974	
2.313	390.439	14	51	DEC 19,1974	
2.329	390.346	14	52	DEC 19,1974	
2.346	390.532	14	53	DEC 19,1974	
2.362	390.579	14	54	DEC 19,1974	
2.379	390.579	14	55	DEC 19,1974	
2.396	390.811	14	56	DEC 19,1974	
2.412	390.579	14	57	DEC 19,1974	
2.429	390.998	14	58	DEC 19,1974	
2.446	390.718	14	59	DEC 19,1974	
2.462	390.811	15	00	DEC 19,1974	
2.479	390.718	15	01	DEC 19,1974	
2.496	390.905	15	02	DEC 19,1974	
2.512	390.811	15	03	DEC 19,1974	
2.529	390.951	15	04	DEC 19,1974	
2.545	390.905	15	05	DEC 19,1974	
2.562	390.951	15	06	DEC 19,1974	
2.579	391.184	15	07	DEC 19,1974	
2.595	391.044	15	08	DEC 19,1974	
2.612	390.998	15	09	DEC 19,1974	
2.629	391.230	15	10	DEC 19,1974	
2.645	391.091	15	11	DEC 19,1974	

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2.662	390.998	15	12	DEC 19,1974	
2.679	390.951	15	13	DEC 19,1974	
2.695	390.905	15	14	DEC 19,1974	
2.712	390.905	15	15	DEC 19,1974	
2.728	390.905	15	16	DEC 19,1974	
2.745	390.811	15	17	DEC 19,1974	
2.762	390.811	15	18	DEC 19,1974	
2.778	390.811	15	19	DEC 19,1974	
2.795	390.718	15	20	DEC 19,1974	
2.812	390.765	15	21	DEC 19,1974	
2.828	390.765	15	22	DEC 19,1974	
2.845	390.718	15	23	DEC 19,1974	
2.862	390.718	15	24	DEC 19,1974	
2.878	390.811	15	25	DEC 19,1974	
2.895	390.718	15	26	DEC 19,1974	
2.911	390.718	15	27	DEC 19,1974	
2.928	390.718	15	28	DEC 19,1974	
2.945	390.765	15	29	DEC 19,1974	
2.961	390.765	15	30	DEC 19,1974	
2.978	390.765	15	31	DEC 19,1974	
2.995	390.672	15	32	DEC 19,1974	
3.011	390.672	15	33	DEC 19,1974	
3.028	390.718	15	34	DEC 19,1974	
3.045	390.718	15	35	DEC 19,1974	
3.061	390.718	15	36	DEC 19,1974	
3.078	390.718	15	37	DEC 19,1974	
3.094	390.718	15	38	DEC 19,1974	
3.111	390.765	15	39	DEC 19,1974	
3.128	390.811	15	40	DEC 19,1974	
3.144	390.811	15	41	DEC 19,1974	
3.161	390.765	15	42	DEC 19,1974	
3.178	390.765	15	43	DEC 19,1974	
3.194	390.765	15	44	DEC 19,1974	
3.211	390.718	15	45	DEC 19,1974	
3.228	390.765	15	46	DEC 19,1974	
3.244	390.765	15	47	DEC 19,1974	
3.261	390.765	15	48	DEC 19,1974	
3.277	390.811	15	49	DEC 19,1974	
3.294	390.811	15	50	DEC 19,1974	
3.311	390.811	15	51	DEC 19,1974	

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3,327	390,299	15	52	DEC 19,1974	START AIR JET
3,344	406.360	15	53	DEC 19,1974	
3,361	362,927	15	54	DEC 19,1974	
3,377	302,085	15	55	DEC 19,1974	
3,394	265.449	15	56	DEC 19,1974	
3,411	285,187	15	57	DEC 19,1974	
3,427	307,299	15	58	DEC 19,1974	
3.444	319,914	15	59	DEC 19,1974	
3,460	329,969	16	00	DEC 19,1974	
3.477	337,650	16	01	DEC 19,1974	
3,494	343.515	16	02	DEC 19,1974	
3.510	347.891	16	03	DEC 19,1974	
3.527	351.243	16	04	DEC 19,1974	
3.544	353,989	16	05	DEC 19,1974	
3.560	356,317	16	06	DEC 19,1974	
3.577	364,696	16	07	DEC 19,1974	
3,594	335,369	16	08	DEC 19,1974	
3,610	327.548	16	09	DEC 19,1974	
3,627	319,123	16	10	DEC 19,1974	
3,643	320.147	16	11	DEC 19,1974	
3,660	314.235	16	12	DEC 19,1974	
3.677	312.047	16	13	DEC 19,1974	
3.693	290.214	16	14	DEC 19,1974	
3,710	285.001	16	15	DEC 19,1974	
3,727	284.675	16	16	DEC 19,1974	
3,743	282.208	16	17	DEC 19,1974	
3,760	280.811	16	18	DEC 19,1974	
3,777	278,158	16	19	DEC 19,1974	
3,793	276,668	16	20	DEC 19,1974	
3,810	275.225	16	21	DEC 19,1974	
3,826	273,968	16	22	DEC 19,1974	
3,843	272,897	16	23	DEC 19,1974	
3,860	271.687	16	24	DEC 19,1974	
3,876	270,803	16	25	DEC 19,1974	
3.893	270.197	16	26	DEC 19,1974	
3,910	269,127	16	27	DEC 19,1974	
3.926	268.103	16	28	DEC 19,1974	
3,943	267.777	16	29	DEC 19,1974	
3,960	266.753	16	30	DEC 19,1974	
3,976	266,287	16	31	DEC 19,1974	

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3.993	265.961	16 32	DEC 19,1974	
4.009	265.449	16 33	DEC 19,1974	
4.026	264.844	16 34	DEC 19,1974	
4.043	264.518	16 35	DEC 19,1974	
4.059	264.099	16 36	DEC 19,1974	
4.076	263.587	16 37	DEC 19,1974	
4.093	263.494	16 38	DEC 19,1974	
4.109	263.215	16 39	DEC 19,1974	
4.126	262.796	16 40	DEC 19,1974	
4.143	262.749	16 41	DEC 19,1974	
4.159	262.423	16 42	DEC 19,1974	
4.176	262.144	16 43	DEC 19,1974	
4.192	262.144	16 44	DEC 19,1974	
4.209	261.539	16 45	DEC 19,1974	
4.226	261.492	16 46	DEC 19,1974	
4.242	261.260	16 47	DEC 19,1974	
4.259	260.980	16 48	DEC 19,1974	
4.276	261.027	16 49	DEC 19,1974	
4.292	260.608	16 50	DEC 19,1974	
4.309	260.561	16 51	DEC 19,1974	
4.326	260.282	16 52	DEC 19,1974	
4.342	260.422	16 53	DEC 19,1974	
4.359	260.189	16 54	DEC 19,1974	
4.375	260.003	16 55	DEC 19,1974	
4.392	260.049	16 56	DEC 19,1974	
4.409	260.003	16 57	DEC 19,1974	
4.425	259.770	16 58	DEC 19,1974	
4.442	259.816	16 59	DEC 19,1974	
4.459	259.444	17 00	DEC 19,1974	
4.475	259.491	17 01	DEC 19,1974	
4.492	259.304	17 02	DEC 19,1974	
4.509	259.491	17 03	DEC 19,1974	
4.525	259.072	17 04	DEC 19,1974	
4.542	259.072	17 05	DEC 19,1974	
4.558	258.979	17 06	DEC 19,1974	
4.575	258.885	17 07	DEC 19,1974	
4.592	258.560	17 08	DEC 19,1974	
4.608	258.653	17 09	DEC 19,1974	
4.625	245.386	17 10	DEC 19,1974	
4.642	244.222	17 11	DEC 19,1974	END AIR JET

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TIME	(PSI)	HR	MIN		
4.658	258.234	17	11	DEC 19,1974	
4.675	268.009	17	12	DEC 19,1974	
4.692	275.318	17	13	DEC 19,1974	
4.708	276.901	17	14	DEC 19,1974	
4.725	286.490	17	15	DEC 19,1974	
4.741	290.866	17	16	DEC 19,1974	
4.758	294.357	17	17	DEC 19,1974	
4.775	298.082	17	18	DEC 19,1974	
4.791	301.713	17	19	DEC 19,1974	
4.808	304.645	17	20	DEC 19,1974	
4.825	307.392	17	21	DEC 19,1974	
4.841	310.790	17	22	DEC 19,1974	
4.858	313.304	17	23	DEC 19,1974	
4.875	316.283	17	24	DEC 19,1974	
4.891	318.704	17	25	DEC 19,1974	
4.908	321.078	17	26	DEC 19,1974	
4.924	323.312	17	27	DEC 19,1974	
4.941	324.429	17	28	DEC 19,1974	
4.958	328.060	17	29	DEC 19,1974	
4.974	330.248	17	30	DEC 19,1974	
4.991	332.204	17	31	DEC 19,1974	
5.008	334.159	17	32	DEC 19,1974	
5.024	335.928	17	33	DEC 19,1974	
5.041	337.650	17	34	DEC 19,1974	
5.058	339.745	17	35	DEC 19,1974	
5.074	341.421	17	36	DEC 19,1974	
5.091	343.050	17	37	DEC 19,1974	
5.107	344.446	17	38	DEC 19,1974	
5.124	345.796	17	39	DEC 19,1974	
5.141	347.007	17	40	DEC 19,1974	
5.157	348.962	17	41	DEC 19,1974	
5.174	350.312	17	42	DEC 19,1974	
5.191	351.755	17	43	DEC 19,1974	
5.207	353.105	17	44	DEC 19,1974	
5.224	354.455	17	45	DEC 19,1974	
5.241	355.665	17	46	DEC 19,1974	
5.257	356.922	17	47	DEC 19,1974	
5.274	358.133	17	48	DEC 19,1974	
5.291	359.203	17	49	DEC 19,1974	
5.307	360.227	17	50	DEC 19,1974	

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DELTA TIME	PRESSURE (PSI)	TIME HR MIN	DATE	COMMENTS
5.324	361.251	17 51	DEC 19,1974	
5.340	362.229	17 52	DEC 19,1974	
5.357	363.207	17 53	DEC 19,1974	
5.374	364.091	17 54	DEC 19,1974	
5.390	364.882	17 55	DEC 19,1974	
5.407	365.767	17 56	DEC 19,1974	
5.424	366.605	17 57	DEC 19,1974	
5.440	367.303	17 58	DEC 19,1974	
5.457	368.094	17 59	DEC 19,1974	
5.474	368.793	18 00	DEC 19,1974	
5.490	369.584	18 01	DEC 19,1974	
5.507	370.096	18 02	DEC 19,1974	
5.523	370.794	18 03	DEC 19,1974	
5.540	371.539	18 04	DEC 19,1974	
5.557	372.005	18 05	DEC 19,1974	
5.573	372.610	18 06	DEC 19,1974	
5.590	373.169	18 07	DEC 19,1974	
5.607	373.681	18 08	DEC 19,1974	
5.623	374.193	18 09	DEC 19,1974	
5.640	374.658	18 10	DEC 19,1974	
5.657	375.124	18 11	DEC 19,1974	
5.673	375.589	18 12	DEC 19,1974	
5.690	376.055	18 13	DEC 19,1974	
5.706	376.381	18 14	DEC 19,1974	
5.723	376.753	18 15	DEC 19,1974	
5.740	377.218	18 16	DEC 19,1974	
5.756	377.637	18 17	DEC 19,1974	
5.773	377.963	18 18	DEC 19,1974	
5.790	378.336	18 19	DEC 19,1974	
5.806	378.755	18 20	DEC 19,1974	
5.823	379.034	18 21	DEC 19,1974	
5.840	379.406	18 22	DEC 19,1974	
5.856	379.686	18 23	DEC 19,1974	
5.873	380.012	18 24	DEC 19,1974	
5.889	380.244	18 25	DEC 19,1974	
5.906	380.524	18 26	DEC 19,1974	
5.923	380.803	18 27	DEC 19,1974	
5.939	381.082	18 28	DEC 19,1974	
5.956	381.315	18 29	DEC 19,1974	
5.973	381.641	18 30	DEC 19,1974	

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5.989	381.827	18	31	DEC 19,1974	
6.006	382.060	18	32	DEC 19,1974	
6.023	382.339	18	33	DEC 19,1974	
6.039	382.479	18	34	DEC 19,1974	
6.056	382.758	18	35	DEC 19,1974	
6.072	382.898	18	36	DEC 19,1974	
6.089	383.084	18	37	DEC 19,1974	
6.106	383.317	18	38	DEC 19,1974	
6.122	383.503	18	39	DEC 19,1974	
6.139	383.736	18	40	DEC 19,1974	
6.156	383.922	18	41	DEC 19,1974	
6.172	384.108	18	42	DEC 19,1974	INJECT 21 GPM
6.189	384.341	18	43	DEC 19,1974	DOWN ANNULUS
6.206	384.527	18	44	DEC 19,1974	
6.222	384.620	18	45	DEC 19,1974	
6.239	384.806	18	46	DEC 19,1974	
6.255	384.946	18	47	DEC 19,1974	
6.272	385.039	18	48	DEC 19,1974	
6.289	385.225	18	49	DEC 19,1974	
6.305	385.365	18	50	DEC 19,1974	
6.322	385.505	18	51	DEC 19,1974	
6.339	385.691	18	52	DEC 19,1974	
6.355	385.784	18	53	DEC 19,1974	
6.372	385.877	18	54	DEC 19,1974	
6.389	386.017	18	55	DEC 19,1974	
6.405	386.156	18	56	DEC 19,1974	
6.422	386.249	18	57	DEC 19,1974	
6.438	386.436	18	58	DEC 19,1974	
6.455	386.575	18	59	DEC 19,1974	
6.472	386.668	19	00	DEC 19,1974	
6.488	386.715	19	01	DEC 19,1974	
6.505	386.808	19	02	DEC 19,1974	INJECT 39 GPM
6.522	386.994	19	03	DEC 19,1974	DOWN ANNULUS
6.538	387.087	19	04	DEC 19,1974	
6.555	387.180	19	05	DEC 19,1974	
6.572	387.274	19	06	DEC 19,1974	
6.588	387.413	19	07	DEC 19,1974	
6.605	387.553	19	08	DEC 19,1974	
6.621	387.646	19	09	DEC 19,1974	
6.638	387.786	19	10	DEC 19,1974	

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6.655	387.879	19	11	DEC 19,1974	
6.671	387.925	19	12	DEC 19,1974	
6.688	387.972	19	13	DEC 19,1974	
6.705	388.111	19	14	DEC 19,1974	
6.721	388.251	19	15	DEC 19,1974	
6.738	388.344	19	16	DEC 19,1974	
6.755	388.391	19	17	DEC 19,1974	
6.771	388.437	19	18	DEC 19,1974	
6.788	388.530	19	19	DEC 19,1974	
6.804	388.670	19	20	DEC 19,1974	
6.821	388.763	19	21	DEC 19,1974	
6.838	388.810	19	22	DEC 19,1974	INJECT 61 GPM
6.854	388.949	19	23	DEC 19,1974	DOWN ANNULUS
6.871	388.996	19	24	DEC 19,1974	
6.888	389.136	19	25	DEC 19,1974	
6.904	389.275	19	26	DEC 19,1974	
6.921	389.368	19	27	DEC 19,1974	
6.938	389.368	19	28	DEC 19,1974	
6.954	389.508	19	29	DEC 19,1974	
6.971	389.601	19	30	DEC 19,1974	
6.987	389.694	19	31	DEC 19,1974	
7.004	389.787	19	32	DEC 19,1974	
7.021	389.834	19	33	DEC 19,1974	
7.037	389.974	19	34	DEC 19,1974	
7.054	390.020	19	35	DEC 19,1974	
7.071	390.113	19	36	DEC 19,1974	
7.087	390.160	19	37	DEC 19,1974	
7.104	390.299	19	38	DEC 19,1974	
7.121	390.392	19	39	DEC 19,1974	
7.137	390.439	19	40	DEC 19,1974	
7.154	390.486	19	41	DEC 19,1974	
7.170	390.579	19	42	DEC 19,1974	
7.187	390.718	19	43	DEC 19,1974	
7.204	390.765	19	44	DEC 19,1974	
7.220	390.765	19	45	DEC 19,1974	
7.237	390.811	19	46	DEC 19,1974	
7.254	390.858	19	47	DEC 19,1974	
7.270	390.858	19	48	DEC 19,1974	
7.287	390.905	19	49	DEC 19,1974	
7.304	390.905	19	50	DEC 19,1974	

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7.320	390.998	19	51	DEC 19,1974	
7.337	390.998	19	52	DEC 19,1974	
7.353	391.044	19	53	DEC 19,1974	
7.370	391.044	19	54	DEC 19,1974	
7.387	391.091	19	55	DEC 19,1974	
7.403	391.091	19	56	DEC 19,1974	
7.420	391.091	19	57	DEC 19,1974	
7.437	391.044	19	58	DEC 19,1974	
7.453	391.091	19	59	DEC 19,1974	
7.470	391.091	20	00	DEC 19,1974	
7.487	391.091	20	01	DEC 19,1974	
7.503	391.137	20	02	DEC 19,1974	
7.520	391.137	20	03	DEC 19,1974	
7.536	391.184	20	04	DEC 19,1974	
7.553	391.137	20	05	DEC 19,1974	
7.570	391.044	20	06	DEC 19,1974	
7.586	391.137	20	07	DEC 19,1974	
7.603	391.137	20	08	DEC 19,1974	
7.620	391.137	20	09	DEC 19,1974	
7.636	391.137	20	10	DEC 19,1974	
7.653	391.137	20	11	DEC 19,1974	
7.670	391.137	20	12	DEC 19,1974	
7.686	391.184	20	13	DEC 19,1974	2 GPM DOWN
7.703	391.184	20	14	DEC 19,1974	DRILL PIPE
7.719	391.184	20	15	DEC 19,1974	
7.736	393.372	20	16	DEC 19,1974	
7.753	394.861	20	17	DEC 19,1974	
7.769	396.072	20	18	DEC 19,1974	
7.786	397.003	20	19	DEC 19,1974	
7.803	397.934	20	20	DEC 19,1974	
7.819	398.725	20	21	DEC 19,1974	
7.836	399.377	20	22	DEC 19,1974	
7.853	400.075	20	23	DEC 19,1974	
7.869	400.773	20	24	DEC 19,1974	
7.886	401.239	20	25	DEC 19,1974	
7.902	401.844	20	26	DEC 19,1974	
7.919	402.403	20	27	DEC 19,1974	
7.936	402.822	20	28	DEC 19,1974	
7.952	403.287	20	29	DEC 19,1974	
7.969	403.706	20	30	DEC 19,1974	

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		HR	MIN		
7.986	404.079	20	31	DEC 19,1974	
8.002	404.497	20	32	DEC 19,1974	
8.019	404.777	20	33	DEC 19,1974	5 GPM DOWN
8.036	405.149	20	34	DEC 19,1974	DRILL PIPE
8.052	406.080	20	35	DEC 19,1974	
8.069	407.104	20	36	DEC 19,1974	
8.085	407.756	20	37	DEC 19,1974	
8.102	408.501	20	38	DEC 19,1974	
8.119	409.013	20	39	DEC 19,1974	
8.135	409.153	20	40	DEC 19,1974	
8.152	410.177	20	41	DEC 19,1974	
8.169	410.689	20	42	DEC 19,1974	
8.185	411.201	20	43	DEC 19,1974	
8.202	411.573	20	44	DEC 19,1974	
8.219	412.132	20	45	DEC 19,1974	
8.235	412.644	20	46	DEC 19,1974	
8.252	413.016	20	47	DEC 19,1974	
8.268	413.389	20	48	DEC 19,1974	
8.285	413.901	20	49	DEC 19,1974	
8.302	414.320	20	50	DEC 19,1974	
8.318	414.692	20	51	DEC 19,1974	
8.335	415.065	20	52	DEC 19,1974	
8.352	415.484	20	53	DEC 19,1974	11 GPM DOWN
8.368	417.951	20	54	DEC 19,1974	DRILL PIPE
8.385	423.956	20	55	DEC 19,1974	
8.402	428.471	20	56	DEC 19,1974	
8.418	432.568	20	57	DEC 19,1974	
8.435	436.106	20	58	DEC 19,1974	
8.451	439.364	20	59	DEC 19,1974	
8.468	442.483	21	00	DEC 19,1974	
8.485	445.276	21	01	DEC 19,1974	
8.501	448.162	21	02	DEC 19,1974	
8.518	449.792	21	03	DEC 19,1974	OVERFLOW 1 GPM
8.535	450.443	21	04	DEC 19,1974	
8.551	450.676	21	05	DEC 19,1974	
8.568	451.142	21	06	DEC 19,1974	
8.585	451.421	21	07	DEC 19,1974	
8.601	451.700	21	08	DEC 19,1974	
8.618	451.933	21	09	DEC 19,1974	
8.634	452.073	21	10	DEC 19,1974	

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8.651	452.212	21	11	DEC 19,1974	
8.668	452.399	21	12	DEC 19,1974	
8.684	452.492	21	13	DEC 19,1974	DECLINE
8.701	449.466	21	14	DEC 19,1974	
8.718	444.671	21	15	DEC 19,1974	
8.734	440.994	21	16	DEC 19,1974	
8.751	438.061	21	17	DEC 19,1974	
8.768	435.501	21	18	DEC 19,1974	
8.784	433.173	21	19	DEC 19,1974	
8.801	431.171	21	20	DEC 19,1974	
8.818	429.216	21	21	DEC 19,1974	
8.834	427.401	21	22	DEC 19,1974	
8.851	425.678	21	23	DEC 19,1974	
8.867	424.142	21	24	DEC 19,1974	
8.884	422.606	21	25	DEC 19,1974	
8.901	421.209	21	26	DEC 19,1974	
8.917	419.813	21	27	DEC 19,1974	
8.934	418.602	21	28	DEC 19,1974	
8.951	417.485	21	29	DEC 19,1974	
8.967	416.321	21	30	DEC 19,1974	
8.984	415.251	21	31	DEC 19,1974	
9.001	414.180	21	32	DEC 19,1974	
9.017	413.249	21	33	DEC 19,1974	
9.034	412.365	21	34	DEC 19,1974	
9.050	411.434	21	35	DEC 19,1974	
9.067	410.503	21	36	DEC 19,1974	
9.084	409.665	21	37	DEC 19,1974	
9.100	409.013	21	38	DEC 19,1974	
9.117	408.315	21	39	DEC 19,1974	
9.134	407.570	21	40	DEC 19,1974	
9.150	407.011	21	41	DEC 19,1974	
9.167	406.453	21	42	DEC 19,1974	
9.184	405.894	21	43	DEC 19,1974	
9.200	405.289	21	44	DEC 19,1974	
9.217	404.730	21	45	DEC 19,1974	
9.233	404.172	21	46	DEC 19,1974	
9.250	403.660	21	47	DEC 19,1974	
9.267	403.241	21	48	DEC 19,1974	
9.283	402.868	21	49	DEC 19,1974	END TEST

559 POINTS REPORTED THIS RUN

SG-21
MPT 2

SPG-11221 MPT #2
RUN #2

Run #2

Top Gauge (Outside) # 222 Element # 35990 Range 1400 Time Mode 1 min.
Middle Inside Gauge # 136 Element # 35336 Range 2000 Time Mode 1 min.
Bottom Inside Gauge # 188 Element # 35337 Range 2000 Time Mode 1 min.

Test Depths 950' - 1000' - 1036' Zero Point Ground Level
Packer Depths 950' - 1000' Tail Pipe Depth 1036'
Top Gauge 907' Middle Inside Gauge 974'
Bottom Inside 1018' Bottom Temp. 94°F

Time Information Run #2

On Bottom				
Packer Set	~~15:26~~	12-21		1701
Initial Open	~~15:26~~		ok	1707
Initial Shut-in	~~15:31~~ ?			1712
Start Flow	~~1730 hrs ?~~ 12/22/74			1746
Final Shut-in	0120 hrs. 12/22/74		ok	
Packer Unseated	0121 hrs. 12/22/74			

Time of Surface Nulls

Top Gauge 0300 0301 0302 Middle Gauge 0216 0217 0218 Run #1
Bottom Gauge 0124 0125 0126
Top Gauge 1507 1508 1509 Middle Gauge 1501 1502 1503 Run #2
Bottom Gauge 1604 1605 1606

Remarks:
601

II B-2106

Operator Don Mason

SPERRY-SUN
P.O. Box 36363 Houston, Texas 77036 Phone (713) 494-3021
Cable SPERRYSUN TELEX 76-2795

Houston Corpus Christi and Odessa Tex /Lafayette and New Orleans La Long Beach and Ventura Calif /Anchorage Alaska Brewton Ala Brookhaven Miss Casper Wyo Mercury Nev /Oklahoma City Okla Vernal Utah Edmonton Alta Canada Dubai United Arab Emirates Arabian Gulf Great Yarmouth Norfolk England Aberdeen Scotland Servco de Venezuela Maracaibo Trinidad Well Control Trinidad W I

JOB NUMBER
SPG-11221-MPT 2

DATE OF JOB
DECEMBER 21 AND 22, 1974

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

PREPARED FOR

ATLANTIC RICHFIELD COMPANY

WELL NUMBER	FEDERAL SG-21
FIELD/LEASE	SORGHUM GULCH TRACT CB
COUNTY/PARISH	RIO BLANCO
STATE	COLORADO
TYPE OF TEST	MULTIPLE PACKER DRILL STEM
REFERENCE ELEV	GROUND LEVEL

ADDITIONAL INFORMATION

THIS REPORT FROM GAUGE NO.188 RUN IN ANNULUS AT 1018 FT. FROM SURFACE

THE BOTTOM PACKER WAS 1000 FT.

REFERENCE ELEVATION IS 6811 FT.

IMITIAL HYDROSTATIC 388.25 PSI

FINAL HYDROSTATIC 385.74 PSI

TESTED ZONE WAS FROM 950 FT (UPPER PACKER) TO 1000 FT (LOWER PACKER)

LOWER OBSERVATION ZONE WAS FROM 1000 FT (LOWER PACKER) TO 1036 FT. (T.D.)

566 POINTS REPORTED THIS JOB

JOB NUMBER
SPG-11221-MPT 2

DATE OF JOB
DECEMBER 21 AND 22, 1974

GAUGE/RUN NUMBER
188   MPT-NO,2 INIT,OPEN

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0,000	389,037	17	07	DEC 21,1974	INITIAL OPEN
,017	388,898	17	08	DEC 21,1974	
,033	388,712	17	09	DEC 21,1974	
,050	388,572	17	10	DEC 21,1974	
,067	388,387	17	11	DEC 21,1974	
,083	388,247	17	12	DEC 21,1974	END OPEN

6 POINTS REPORTED THIS RUN

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JOB NUMBER                                                              DATE OF JOB
SPG-11221-MPT 2                                           DECEMBER 21 AND 22, 1974

GAUGE/RUN NUMBER                                                        DATE OF RUN
188   MPT-NO,2 SHUT IN

                                     SPERRY-SUN
                     PRECISION SUBSURFACE PRESSURE GAUGE REPORT


   DELTA    PRESSURE                       TIME      DATE              COMMENTS
   TIME     (PSI)                         HR MIN

   0,000    388,247                       17  12 DEC 21,1974   INITIAL SHUTIN
    ,017    388,154                       17  13 DEC 21,1974
    ,033    388,061                       17  14 DEC 21,1974
    ,050    387,969                       17  15 DEC 21,1974
    ,067    387,922                       17  16 DEC 21,1974
    ,083    387.876                       17  17 DEC 21,1974
    ,100    387,922                       17  18 DEC 21,1974
    ,117    387,829                       17  19 DEC 21,1974
    ,133    387,876                       17  20 DEC 21,1974
    ,150    387,829                       17  21 DEC 21,1974
    ,167    387,829                       17  22 DEC 21,1974
    ,183    387.876                       17  23 DEC 21,1974
    ,200    387,876                       17  24 DEC 21,1974
    ,217    387,922                       17  25 DEC 21,1974
    ,233    387.876                       17  26 DEC 21,1974
    ,250    387,969                       17  27 DEC 21,1974
    ,267    387,969                       17  28 DEC 21,1974
    ,283    388,015                       17  29 DEC 21,1974
    ,300    385,228                       17  30 DEC 21,1974
    ,317    388,015                       17  31 DEC 21,1974
    ,333    388.061                       17  32 DEC 21,1974
    ,350    388,061                       17  33 DEC 21,1974
    .367    388,061                       17  34 DEC 21,1974
    ,383    388.108                       17  35 DEC 21,1974
    ,400    388,108                       17  36 DEC 21,1974
    ,417    388.154                       17  37 DEC 21,1974
    ,433    388.154                       17  38 DEC 21,1974
    ,450    388,061                       17  39 DEC 21,1974
    ,467    388,154                       17  40 DEC 21,1974
    ,483    388,201                       17  41 DEC 21,1974
    ,500    388,154                       17  42 DEC 21,1974
    ,517    388.201                       17  43 DEC 21,1974
    ,533    388.201                       17  44 DEC 21,1974
    ,550    388,201                       17  45 DEC 21,1974
    ,567    387,458                       17  46 DEC 21,1974   END SHUTIN
```

35 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11221-MPT 2

DATE OF JOB
DECEMBER 21 AND 22, 1974

GAUGE/RUN NUMBER
188 MPT-NO.2 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0.000	387.458	17	46	DEC 21,1974	FINAL OPEN
.014	388.201	17	47	DEC 21,1974	
.029	388.201	17	48	DEC 21,1974	
.043	388.201	17	49	DEC 21,1974	
.058	388.201	17	49	DEC 21,1974	
.072	388.201	17	50	DEC 21,1974	
.087	388.201	17	51	DEC 21,1974	
.101	388.247	17	52	DEC 21,1974	
.116	388.201	17	53	DEC 21,1974	
.130	388.247	17	54	DEC 21,1974	
.144	388.201	17	55	DEC 21,1974	
.159	388.201	17	56	DEC 21,1974	
.173	388.201	17	56	DEC 21,1974	
.188	388.201	17	57	DEC 21,1974	
.202	388.294	17	58	DEC 21,1974	
.217	388.201	17	59	DEC 21,1974	
.231	388.247	18	00	DEC 21,1974	
.245	388.294	18	01	DEC 21,1974	
.260	388.294	18	02	DEC 21,1974	
.274	388.247	18	02	DEC 21,1974	
.289	388.247	18	03	DEC 21,1974	
.303	388.247	18	04	DEC 21,1974	
.318	388.294	18	05	DEC 21,1974	
.332	388.294	18	06	DEC 21,1974	
.347	388.247	18	07	DEC 21,1974	
.361	388.247	18	08	DEC 21,1974	
.375	388.247	18	09	DEC 21,1974	
.390	388.247	18	09	DEC 21,1974	
.404	388.247	18	10	DEC 21,1974	
.419	388.294	18	11	DEC 21,1974	
.433	388.294	18	12	DEC 21,1974	
.448	388.294	18	13	DEC 21,1974	
.462	388.247	18	14	DEC 21,1974	
.477	388.294	18	15	DEC 21,1974	
.491	388.294	18	15	DEC 21,1974	
.505	388.294	18	16	DEC 21,1974	
.520	388.294	18	17	DEC 21,1974	
.534	388.247	18	18	DEC 21,1974	
.549	388.294	18	19	DEC 21,1974	
.563	388.294	18	20	DEC 21,1974	

JOB NUMBER
SPG-11221-MPT 2

DATE OF JOB
DECEMBER 21 AND 22, 1974

GAUGE/RUN NUMBER
188 MPT-NO.2 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
.578	388.247	18	21	DEC 21,1974	
.592	388.294	18	22	DEC 21,1974	
.606	388.294	18	22	DEC 21,1974	
.621	388.294	18	23	DEC 21,1974	
.635	388.340	18	24	DEC 21,1974	
.650	388.340	18	25	DEC 21,1974	
.664	388.340	18	26	DEC 21,1974	
.679	388.294	18	27	DEC 21,1974	
.693	388.294	18	28	DEC 21,1974	
.708	388.294	18	28	DEC 21,1974	
.722	388.340	18	29	DEC 21,1974	
.736	388.340	18	30	DEC 21,1974	
.751	388.340	18	31	DEC 21,1974	
.765	388.294	18	32	DEC 21,1974	
.780	388.340	18	33	DEC 21,1974	
.794	388.340	18	34	DEC 21,1974	
.809	388.340	18	35	DEC 21,1974	
.823	388.340	18	35	DEC 21,1974	
.838	388.294	18	36	DEC 21,1974	
.852	388.340	18	37	DEC 21,1974	
.866	388.340	18	38	DEC 21,1974	
.881	388.294	18	39	DEC 21,1974	
.895	388.340	18	40	DEC 21,1974	
.910	388.340	18	41	DEC 21,1974	
.924	388.340	18	41	DEC 21,1974	
.939	388.340	18	42	DEC 21,1974	
.953	388.340	18	43	DEC 21,1974	
.967	388.294	18	44	DEC 21,1974	
.982	388.294	18	45	DEC 21,1974	
.996	388.340	18	46	DEC 21,1974	
1.011	388.340	18	47	DEC 21,1974	
1.025	388.340	18	48	DEC 21,1974	
1.040	388.340	18	48	DEC 21,1974	
1.054	388.340	18	49	DEC 21,1974	
1.069	388.340	18	50	DEC 21,1974	
1.083	388.340	18	51	DEC 21,1974	
1.097	388.340	18	52	DEC 21,1974	
1.112	388.340	18	53	DEC 21,1974	
1.126	388.340	18	54	DEC 21,1974	
1.141	388.340	18	54	DEC 21,1974	

JOB NUMBER
SPG-11221-MPT 2

DATE OF JOB
DECEMBER 21 AND 22, 1974

GAUGE/RUN NUMBER
188 MPT-NO,2 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
1,155	388,294	18	55	DEC 21,1974	
1,170	388,340	18	56	DEC 21,1974	
1,184	388,340	18	57	DEC 21,1974	
1.199	388,340	18	58	DEC 21,1974	
1,213	388,340	18	59	DEC 21,1974	
1.227	388.340	19	00	DEC 21,1974	
1,242	388.387	19	01	DEC 21,1974	
1.256	388.387	19	01	DEC 21,1974	
1.271	388.340	19	02	DEC 21,1974	
1,285	388,340	19	03	DEC 21,1974	
1.300	388,340	19	04	DEC 21,1974	
1,314	388,340	19	05	DEC 21,1974	
1,328	388,340	19	06	DEC 21,1974	
1,343	388,340	19	07	DEC 21,1974	
1,357	388,340	19	07	DEC 21,1974	
1.372	388,340	19	08	DEC 21,1974	
1,386	388.340	19	09	DEC 21,1974	
1,401	388.387	19	10	DEC 21,1974	
1,415	388.387	19	11	DEC 21,1974	START JETTING
1,430	388.387	19	12	DEC 21,1974	37 GPM RATE
1,444	388,387	19	13	DEC 21,1974	
1,458	388.340	19	14	DEC 21,1974	
1.473	388,340	19	14	DEC 21,1974	
1,487	388,340	19	15	DEC 21,1974	
1,502	388,387	19	16	DEC 21,1974	
1,516	388.201	19	17	DEC 21,1974	
1,531	388,154	19	18	DEC 21,1974	
1,545	388.015	19	19	DEC 21,1974	
1,560	387,829	19	20	DEC 21,1974	
1,574	387.690	19	20	DEC 21,1974	
1,588	387.504	19	21	DEC 21,1974	
1,603	387.411	19	22	DEC 21,1974	
1,617	387,179	19	23	DEC 21,1974	
1,632	386,993	19	24	DEC 21,1974	
1,646	386.807	19	25	DEC 21,1974	
1,661	386.575	19	26	DEC 21,1974	
1,675	386,343	19	27	DEC 21,1974	
1,689	386.157	19	27	DEC 21,1974	
1,704	386,064	19	28	DEC 21,1974	
1,718	385,879	19	29	DEC 21,1974	

JOB NUMBER
SPG-11221-MPT 2

DATE OF JOB
DECEMBER 21 AND 22, 1974

GAUGE/RUN NUMBER
188 MPT-NO.2 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
1.733	389.693	19	30	DEC 21,1974	
1.747	385.507	19	31	DEC 21,1974	
1.762	385.321	19	32	DEC 21,1974	
1.776	385.182	19	33	DEC 21,1974	
1.791	384.996	19	33	DEC 21,1974	
1.805	384.950	19	34	DEC 21,1974	
1.819	384.857	19	35	DEC 21,1974	
1.834	384.764	19	36	DEC 21,1974	
1.848	384.485	19	37	DEC 21,1974	
1.863	384.439	19	38	DEC 21,1974	
1.877	384.346	19	39	DEC 21,1974	
1.892	384.206	19	39	DEC 21,1974	
1.906	384.021	19	40	DEC 21,1974	
1.921	383.928	19	41	DEC 21,1974	
1.935	383.835	19	42	DEC 21,1974	
1.949	383.696	19	43	DEC 21,1974	
1.964	383.696	19	44	DEC 21,1974	
1.978	383.603	19	45	DEC 21,1974	
1.993	383.463	19	46	DEC 21,1974	
2.007	383.370	19	46	DEC 21,1974	
2.022	383.231	19	47	DEC 21,1974	
2.036	383.092	19	48	DEC 21,1974	
2.050	382.999	19	49	DEC 21,1974	
2.065	382.952	19	50	DEC 21,1974	
2.079	382.860	19	51	DEC 21,1974	
2.094	382.767	19	52	DEC 21,1974	
2.108	382.674	19	52	DEC 21,1974	
2.123	382.581	19	53	DEC 21,1974	
2.137	382.488	19	54	DEC 21,1974	
2.152	382.488	19	55	DEC 21,1974	
2.166	382.395	19	56	DEC 21,1974	
2.180	382.349	19	57	DEC 21,1974	
2.195	382.256	19	58	DEC 21,1974	
2.209	382.163	19	59	DEC 21,1974	
2.224	382.070	19	59	DEC 21,1974	
2.238	382.023	20	00	DEC 21,1974	
2.253	381.931	20	01	DEC 21,1974	
2.267	381.884	20	02	DEC 21,1974	
2.282	381.838	20	03	DEC 21,1974	
2.296	381.745	20	04	DEC 21,1974	

JOB NUMBER
SPG-11221-MPT 2

DATE OF JOB
DECEMBER 21 AND 22, 1974

GAUGE/RUN NUMBER
188 MPT-NO.2 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
2,310	381.652	20	05	DEC 21,1974	
2,325	381,605	20	05	DEC 21,1974	
2,339	381.559	20	06	DEC 21,1974	
2.354	381,513	20	07	DEC 21,1974	
2,368	381,466	20	08	DEC 21,1974	
2,383	381,373	20	09	DEC 21,1974	
2.397	381.373	20	10	DEC 21,1974	
2,411	381,327	20	11	DEC 21,1974	
2,426	381.280	20	12	DEC 21,1974	END JETTING
2.440	381.234	20	12	DEC 21,1974	
2,455	381.234	20	13	DEC 21,1974	
2.469	381,141	20	14	DEC 21,1974	
2.484	381.141	20	15	DEC 21,1974	
2,498	381.048	20	16	DEC 21,1974	
2,513	381.002	20	17	DEC 21,1974	
2.527	380,909	20	18	DEC 21,1974	
2.541	380.862	20	18	DEC 21,1974	
2,556	380.909	20	19	DEC 21,1974	
2,570	380.909	20	20	DEC 21,1974	
2,585	380.955	20	21	DEC 21,1974	
2,599	381,002	20	22	DEC 21,1974	
2,614	381.095	20	23	DEC 21,1974	
2,628	381,234	20	24	DEC 21,1974	
2.643	381.373	20	25	DEC 21,1974	
2.657	381.513	20	25	DEC 21,1974	
2,671	381,698	20	26	DEC 21,1974	
2,686	381.838	20	27	DEC 21,1974	
2,700	381.977	20	28	DEC 21,1974	
2,715	382.023	20	29	DEC 21,1974	
2,729	382.163	20	30	DEC 21,1974	
2.744	382.395	20	31	DEC 21,1974	
2,758	382.442	20	31	DEC 21,1974	
2,772	382.534	20	32	DEC 21,1974	
2,787	382.627	20	33	DEC 21,1974	
2,801	382.767	20	34	DEC 21,1974	
2,816	382,906	20	35	DEC 21,1974	
2.830	383.092	20	36	DEC 21,1974	
2,845	383.138	20	37	DEC 21,1974	
2,859	383.324	20	38	DEC 21,1974	
2,874	383.324	20	38	DEC 21,1974	

JOB NUMBER
SPG-11221-MPT 2

DATE OF JOB
DECEMBER 21 AND 22, 1974

GAUGE/RUN NUMBER
188 MPT-NO.2 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
2,888	383,463	20	39	DEC 21,1974	
2,902	383.603	20	40	DEC 21,1974	
2.917	383,788	20	41	DEC 21,1974	
2,931	383.881	20	42	DEC 21,1974	
2,946	383,974	20	43	DEC 21,1974	
2,960	384,114	20	44	DEC 21,1974	
2,975	384,253	20	44	DEC 21,1974	
2,989	384,299	20	45	DEC 21,1974	
3.004	384.346	20	46	DEC 21,1974	
3,018	384,439	20	47	DEC 21,1974	
3,032	384.532	20	48	DEC 21,1974	
3.047	384,624	20	49	DEC 21,1974	
3,061	384,717	20	50	DEC 21,1974	
3,076	384,764	20	51	DEC 21,1974	
3,090	384,857	20	51	DEC 21,1974	
3.105	384,857	20	52	DEC 21,1974	
3,119	384.857	20	53	DEC 21,1974	
3,133	384,950	20	54	DEC 21,1974	
3,148	384,996	20	55	DEC 21,1974	
3,162	385.089	20	56	DEC 21,1974	
3.177	385,135	20	57	DEC 21,1974	
3,191	385,135	20	57	DEC 21,1974	
3,206	385,228	20	58	DEC 21,1974	
3,220	385.275	20	59	DEC 21,1974	
3,235	385,321	21	00	DEC 21,1974	
3,249	385.368	21	01	DEC 21,1974	
3,263	385.414	21	02	DEC 21,1974	
3,278	385,414	21	03	DEC 21,1974	
3,292	385,507	21	04	DEC 21,1974	
3.307	385.553	21	04	DEC 21,1974	
3,321	385,646	21	05	DEC 21,1974	
3,336	385.646	21	06	DEC 21,1974	
3,350	385.693	21	07	DEC 21,1974	
3,365	385,832	21	08	DEC 21,1974	
3,379	385,832	21	09	DEC 21,1974	
3,393	385,879	21	10	DEC 21,1974	
3,408	385.879	21	10	DEC 21,1974	
3,422	385,971	21	11	DEC 21,1974	
3,437	385,414	21	12	DEC 21,1974	
3,451	385,925	21	13	DEC 21,1974	

JOB NUMBER
SPG-11221-MPT 2

DATE OF JOB
DECEMBER 21 AND 22, 1974

GAUGE/RUN NUMBER
188 MPT-NO.2 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
3.466	385.971	21	14	DEC 21,1974	
3.480	386.018	21	15	DEC 21,1974	
3.494	386.064	21	16	DEC 21,1974	
3.509	386.064	21	17	DEC 21,1974	
3.523	386.111	21	17	DEC 21,1974	
3.538	386.111	21	18	DEC 21,1974	
3.552	386.157	21	19	DEC 21,1974	
3.567	386.204	21	20	DEC 21,1974	
3.581	386.204	21	21	DEC 21,1974	
3.596	386.250	21	22	DEC 21,1974	
3.610	386.297	21	23	DEC 21,1974	
3.624	386.297	21	23	DEC 21,1974	
3.639	386.343	21	24	DEC 21,1974	
3.653	386.389	21	25	DEC 21,1974	
3.668	386.389	21	26	DEC 21,1974	
3.682	386.389	21	27	DEC 21,1974	
3.697	386.389	21	28	DEC 21,1974	
3.711	386.482	21	29	DEC 21,1974	
3.726	386.482	21	30	DEC 21,1974	
3.740	386.482	21	30	DEC 21,1974	
3.754	386.529	21	31	DEC 21,1974	
3.769	386.575	21	32	DEC 21,1974	
3.783	386.529	21	33	DEC 21,1974	
3.798	386.575	21	34	DEC 21,1974	
3.812	386.622	21	35	DEC 21,1974	
3.827	386.622	21	36	DEC 21,1974	
3.841	386.668	21	36	DEC 21,1974	
3.855	386.668	21	37	DEC 21,1974	
3.870	386.668	21	38	DEC 21,1974	
3.884	386.715	21	39	DEC 21,1974	20 GPM ANNULUS
3.899	386.715	21	40	DEC 21,1974	
3.913	386.761	21	41	DEC 21,1974	
3.928	386.761	21	42	DEC 21,1974	
3.942	386.807	21	43	DEC 21,1974	
3.957	386.807	21	43	DEC 21,1974	
3.971	386.854	21	44	DEC 21,1974	
3.985	386.854	21	45	DEC 21,1974	
4.000	386.854	21	46	DEC 21,1974	
4.014	386.900	21	47	DEC 21,1974	
4.029	386.900	21	48	DEC 21,1974	

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188 MPT-NO.2 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	TIME MIN	DATE	COMMENTS
4.043	386.854	21	49	DEC 21,1974	
4.058	386.900	21	49	DEC 21,1974	
4.072	386.947	21	50	DEC 21,1974	
4.087	386.947	21	51	DEC 21,1974	
4.101	386.993	21	52	DEC 21,1974	
4.115	386.993	21	53	DEC 21,1974	
4.130	387.040	21	54	DEC 21,1974	
4.144	386.993	21	55	DEC 21,1974	
4.159	387.040	21	56	DEC 21,1974	
4.173	387.040	21	56	DEC 21,1974	
4.188	387.040	21	57	DEC 21,1974	
4.202	387.086	21	58	DEC 21,1974	
4.216	387.133	21	59	DEC 21,1974	40 GPM ANNULUS
4.231	387.133	22	00	DEC 21,1974	
4.245	387.133	22	01	DEC 21,1974	
4.260	387.179	22	02	DEC 21,1974	
4.274	387.179	22	02	DEC 21,1974	
4.289	387.179	22	03	DEC 21,1974	
4.303	387.179	22	04	DEC 21,1974	
4.318	387.179	22	05	DEC 21,1974	
4.332	387.179	22	06	DEC 21,1974	
4.346	387.272	22	07	DEC 21,1974	
4.361	387.272	22	08	DEC 21,1974	
4.375	387.272	22	09	DEC 21,1974	
4.390	387.272	22	09	DEC 21,1974	
4.404	387.272	22	10	DEC 21,1974	
4.419	387.318	22	11	DEC 21,1974	
4.433	387.318	22	12	DEC 21,1974	
4.448	387.365	22	13	DEC 21,1974	
4.462	387.365	22	14	DEC 21,1974	
4.476	387.411	22	15	DEC 21,1974	
4.491	387.365	22	15	DEC 21,1974	
4.505	387.365	22	16	DEC 21,1974	
4.520	387.411	22	17	DEC 21,1974	
4.534	387.411	22	18	DEC 21,1974	
4.549	387.411	22	19	DEC 21,1974	60 GPM ANNULUS
4.563	387.411	22	20	DEC 21,1974	
4.577	387.458	22	21	DEC 21,1974	
4.592	387.458	22	22	DEC 21,1974	
4.606	387.458	22	22	DEC 21,1974	

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DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	TIME MIN	DATE	COMMENTS
4,621	387,458	22	23	DEC 21,1974	
4,635	387,504	22	24	DEC 21,1974	
4,650	387.551	22	25	DEC 21,1974	
4,664	387,458	22	26	DEC 21,1974	
4,679	387,551	22	27	DEC 21,1974	
4,693	387,551	22	28	DEC 21,1974	
4,707	387.551	22	28	DEC 21,1974	
4,722	387.551	22	29	DEC 21,1974	
4,736	387.551	22	30	DEC 21,1974	
4,751	387.551	22	31	DEC 21,1974	
4,765	387.597	22	32	DEC 21,1974	
4,780	387.597	22	33	DEC 21,1974	
4,794	387,597	22	34	DEC 21,1974	
4,809	387.597	22	35	DEC 21,1974	
4,823	387,597	22	35	DEC 21,1974	
4,837	387,597	22	36	DEC 21,1974	
4,852	387.597	22	37	DEC 21,1974	
4,866	387,643	22	38	DEC 21,1974	
4,881	387,643	22	39	DEC 21,1974	START DECLINE
4,895	387.643	22	40	DEC 21,1974	
4,910	387,643	22	41	DEC 21,1974	
4,924	387.643	22	41	DEC 21,1974	
4,938	387,690	22	42	DEC 21,1974	
4,953	387.690	22	43	DEC 21,1974	
4,967	387,736	22	44	DEC 21,1974	
4,982	387.736	22	45	DEC 21,1974	
4,996	387,736	22	46	DEC 21,1974	
5,011	387.736	22	47	DEC 21,1974	
5.025	387.736	22	48	DEC 21,1974	
5,040	387.736	22	48	DEC 21,1974	
5,054	387,783	22	49	DEC 21,1974	
5.068	387.783	22	50	DEC 21,1974	
5,083	387,783	22	51	DEC 21,1974	
5.097	387,783	22	52	DEC 21,1974	
5.112	387,783	22	53	DEC 21,1974	
5,126	387.829	22	54	DEC 21,1974	
5,141	387.829	22	54	DEC 21,1974	
5,155	387,783	22	55	DEC 21,1974	
5,170	387.829	22	56	DEC 21,1974	
5,184	387,829	22	57	DEC 21,1974	

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188 MPT-NO.2 FINAL FLOW

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SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
5.198	387.876	22	58	DEC 21,1974	
5.213	387.876	22	59	DEC 21,1974	END DECLINE
5.227	387.876	23	00	DEC 21,1974	
5.242	387.876	23	01	DEC 21,1974	
5.256	387.876	23	01	DEC 21,1974	
5.271	387.876	23	02	DEC 21,1974	
5.285	387.876	23	03	DEC 21,1974	
5.299	387.922	23	04	DEC 21,1974	
5.314	387.876	23	05	DEC 21,1974	
5.328	387.922	23	06	DEC 21,1974	
5.343	387.922	23	07	DEC 21,1974	
5.357	387.969	23	07	DEC 21,1974	
5.372	387.922	23	08	DEC 21,1974	
5.386	387.922	23	09	DEC 21,1974	
5.401	387.969	23	10	DEC 21,1974	2 GPM INSIDE
5.415	387.969	23	11	DEC 21,1974	DRILL PIPE
5.429	387.969	23	12	DEC 21,1974	
5.444	387.969	23	13	DEC 21,1974	
5.458	387.969	23	13	DEC 21,1974	
5.473	387.969	23	14	DEC 21,1974	
5.487	387.969	23	15	DEC 21,1974	
5.502	387.969	23	16	DEC 21,1974	
5.516	388.015	23	17	DEC 21,1974	
5.531	388.015	23	18	DEC 21,1974	
5.545	388.015	23	19	DEC 21,1974	
5.559	388.015	23	20	DEC 21,1974	
5.574	388.015	23	20	DEC 21,1974	
5.588	388.015	23	21	DEC 21,1974	
5.603	388.061	23	22	DEC 21,1974	
5.617	388.061	23	23	DEC 21,1974	
5.632	388.061	23	24	DEC 21,1974	
5.646	388.108	23	25	DEC 21,1974	
5.660	388.154	23	26	DEC 21,1974	
5.675	388.154	23	26	DEC 21,1974	
5.689	388.154	23	27	DEC 21,1974	
5.704	388.201	23	28	DEC 21,1974	
5.718	388.201	23	29	DEC 21,1974	
5.733	388.201	23	30	DEC 21,1974	5 GPM INSIDE
5.747	388.201	23	31	DEC 21,1974	DRILL PIPE
5.762	388.247	23	32	DEC 21,1974	

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188 MPT-NO.2 FINAL FLOW

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PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	TIME MIN	DATE	COMMENTS
5,776	388,294	23	33	DEC 21,1974	
5,790	388,294	23	33	DEC 21,1974	
5,805	388,294	23	34	DEC 21,1974	
5,819	388,294	23	35	DEC 21,1974	
5,834	388,340	23	36	DEC 21,1974	
5,848	388,340	23	37	DEC 21,1974	
5,863	388,294	23	38	DEC 21,1974	
5,877	388,340	23	39	DEC 21,1974	
5,892	388,387	23	39	DEC 21,1974	
5,906	388,433	23	40	DEC 21,1974	
5,920	388,433	23	41	DEC 21,1974	
5,935	388,433	23	42	DEC 21,1974	
5,949	388,433	23	43	DEC 21,1974	
5,964	388,480	23	44	DEC 21,1974	
5,978	388,526	23	45	DEC 21,1974	
5,993	388,526	23	46	DEC 21,1974	
6,007	388,526	23	46	DEC 21,1974	
6,021	388,572	23	47	DEC 21,1974	
6,036	388,619	23	48	DEC 21,1974	
6,050	388,665	23	49	DEC 21,1974	
6,065	388,665	23	50	DEC 21,1974	10 GPM INSIDE
6,079	388,665	23	51	DEC 21,1974	DRILL PIPE
6,094	388,712	23	52	DEC 21,1974	
6,108	388,712	23	52	DEC 21,1974	
6,123	388,758	23	53	DEC 21,1974	
6,137	388,805	23	54	DEC 21,1974	
6,151	388,758	23	55	DEC 21,1974	
6,166	388,758	23	56	DEC 21,1974	
6,180	388,805	23	57	DEC 21,1974	
6,195	388,851	23	58	DEC 21,1974	
6,209	388,851	23	59	DEC 21,1974	
6,224	388,851	23	59	DEC 21,1974	
6,238	388,898	00	00	DEC 22,1974	
6,253	388,944	00	01	DEC 22,1974	
6,267	388,944	00	02	DEC 22,1974	
6,281	389,037	00	03	DEC 22,1974	
6,296	389,037	00	04	DEC 22,1974	
6,310	389,130	00	05	DEC 22,1974	
6,325	389,130	00	05	DEC 22,1974	
6,339	389,223	00	06	DEC 22,1974	

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PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
6.354	389.316	00	07	DEC 22,1974	
6.368	389.408	00	08	DEC 22,1974	
6.382	389.362	00	09	DEC 22,1974	
6.397	389.408	00	10	DEC 22,1974	20 GPM INSIDE
6.411	389.501	00	11	DEC 22,1974	DRILL PIPE
6.426	389.594	00	12	DEC 22,1974	
6.440	389.548	00	12	DEC 22,1974	
6.455	389.594	00	13	DEC 22,1974	
6.469	389.687	00	14	DEC 22,1974	
6.484	389.780	00	15	DEC 22,1974	
6.498	389.780	00	16	DEC 22,1974	
6.512	389.780	00	17	DEC 22,1974	
6.527	389.826	00	18	DEC 22,1974	
6.541	389.873	00	18	DEC 22,1974	
6.556	389.966	00	19	DEC 22,1974	
6.570	390.012	00	20	DEC 22,1974	
6.585	390.152	00	21	DEC 22,1974	
6.599	390.198	00	22	DEC 22,1974	
6.614	390.291	00	23	DEC 22,1974	
6.628	390.337	00	24	DEC 22,1974	
6.642	390.477	00	25	DEC 22,1974	
6.657	390.616	00	25	DEC 22,1974	
6.671	390.709	00	26	DEC 22,1974	
6.686	390.755	00	27	DEC 22,1974	
6.700	390.848	00	28	DEC 22,1974	
6.715	390.988	00	29	DEC 22,1974	
6.729	391.034	00	30	DEC 22,1974	40 GPM INSIDE
6.743	391.127	00	31	DEC 22,1974	DRILL PIPE
6.758	391.220	00	31	DEC 22,1974	
6.772	391.359	00	32	DEC 22,1974	OVERFLOW AT
6.787	391.359	00	33	DEC 22,1974	2 GPM
6.801	391.499	00	34	DEC 22,1974	
6.816	391.591	00	35	DEC 22,1974	
6.830	391.638	00	36	DEC 22,1974	
6.845	391.731	00	37	DEC 22,1974	
6.859	391.824	00	38	DEC 22,1974	
6.873	391.963	00	38	DEC 22,1974	
6.888	392.102	00	39	DEC 22,1974	
6.902	392.242	00	40	DEC 22,1974	
6.917	392.381	00	41	DEC 22,1974	

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188 MPT-NO,2 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
6,931	392,474	00	42	DEC 22,1974	
6,946	392,660	00	43	DEC 22,1974	
6,960	392.706	00	44	DEC 22,1974	
6,975	392.799	00	44	DEC 22,1974	START DECLINE
6,989	392,938	00	45	DEC 22,1974	
7,003	393.078	00	46	DEC 22,1974	
7,018	393.171	00	47	DEC 22,1974	
7,032	393.310	00	48	DEC 22,1974	
7,047	393,449	00	49	DEC 22,1974	
7,061	393,589	00	50	DEC 22,1974	
7,076	393,681	00	51	DEC 22,1974	
7,090	393.728	00	51	DEC 22,1974	
7,104	393.728	00	52	DEC 22,1974	
7,119	393.681	00	53	DEC 22,1974	
7,133	393,635	00	54	DEC 22,1974	
7,148	393,589	00	55	DEC 22,1974	
7,162	393.496	00	56	DEC 22,1974	
7,177	393.356	00	57	DEC 22,1974	
7,191	393.310	00	57	DEC 22,1974	
7,206	393.171	00	58	DEC 22,1974	
7,220	393.078	00	59	DEC 22,1974	
7,234	392.938	01	00	DEC 22,1974	
7,249	392.799	01	01	DEC 22,1974	
7,263	392.706	01	02	DEC 22,1974	
7,278	392.660	01	03	DEC 22,1974	
7,292	392.381	01	04	DEC 22,1974	
7,307	392.335	01	04	DEC 22,1974	END DECLINE
7,321	392.195	01	05	DEC 22,1974	
7,336	392,056	01	06	DEC 22,1974	
7,350	391.963	01	07	DEC 22,1974	
7,364	391.824	01	08	DEC 22,1974	
7,379	391.731	01	09	DEC 22,1974	
7,393	391.638	01	10	DEC 22,1974	
7,408	391.545	01	10	DEC 22,1974	
7,422	391,499	01	11	DEC 22,1974	
7,437	391.406	01	12	DEC 22,1974	
7,451	391.359	01	13	DEC 22,1974	
7,465	391.266	01	14	DEC 22,1974	
7,480	391,173	01	15	DEC 22,1974	
7,494	391,127	01	16	DEC 22,1974	

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JOB NUMBER                                                              DATE OF JOB
SPG-11221-MPT 2                                            DECEMBER 21 AND 22, 1974

GAUGE/RUN NUMBER                                                        DATE OF RUN
188   MPT-NO,2 FINAL FLOW

                                     SPERRY-SUN
                      PRECISION SUBSURFACE PRESSURE GAUGE REPORT

     DELTA    PRESSURE                      TIME     DATE              COMMENTS
     TIME      (PSI)                       HR MIN

     7,509    391,034                      01  17 DEC 22,1974
     7,523    390,941                      01  17 DEC 22,1974
     7,538    390,941                      01  18 DEC 22,1974
     7,552    390,895                      01  19 DEC 22,1974
     7,567    390,848                      01  20 DEC 22,1974    END TEST
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                          525 POINTS REPORTED THIS RUN
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JOB NUMBER
SPG-11221-MPT 2

DATE OF JOB
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SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

PREPARED FOR

ATLANTIC RICHFIELD COMPANY

WELL NUMBER	FEDERAL SG-21
FIELD/LEASE	SORGHUM GULCH TRACT C-B
COUNTY/PARISH	RIO BLANCO
STATE	COLORADO
TYPE OF TEST	MULTIPLE PACKER DRILL STEM
REFERENCE ELEV	GROUND LEVEL

ADDITIONAL INFORMATION

THIS REPORT FROM GAUGE NO. 136 RUN INSIDE DRILL PIPE AT 974 FT. FROM SURFACE

UPPER PACKER DEPTH WAS 950 FT LOWER PACKER DEPTH WAS 1000 FT

REFERENCE ELEVATION IS 6811 FT

INITIAL HYDROSTATIC WAS 385.64 PSI

FINAL HYDROSTATIC WAS 384.53 PSI

TESTED ZONE WAS FROM 950 FT (UPPER PACKER) TO 1000 FT (LOWER PACKER)

LOWER OBSERVATION ZONE WAS FROM 1000 FT (LOWER PACKER) TO 1036 FT (TD)

475 POINTS REPORTED THIS JOB

JOB NUMBER
SPG-11221-MPT 2

DATE OF JOB
DECEMBER 21 AND 22, 1974

GAUGE/RUN NUMBER
136 MPT-2 INIT.FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0.000	341.746	17	07	DEC 21,1974	INITIAL OPEN
.017	339.698	17	08	DEC 21,1974	
.033	346.448	17	09	DEC 21,1974	
.050	358.691	17	10	DEC 21,1974	
.067	370.050	17	11	DEC 21,1974	
.083	379.127	17	12	DEC 21,1974	END OPEN

6 POINTS REPORTED THIS RUN

JOB NUMBER SPG-11221-MPT 2	DATE OF JOB DECEMBER 21 AND 22, 1974
GAUGE/RUN NUMBER 136 MPT-2 SHUT IN	DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	TIME MIN	DATE	COMMENTS
0.000	379.127	17	12	DEC 21,1974	INITIAL SHUTIN
.018	384.713	17	13	DEC 21,1974	
.037	386.110	17	14	DEC 21,1974	
.055	387.879	17	15	DEC 21,1974	
.073	388.391	17	16	DEC 21,1974	
.091	388.717	17	17	DEC 21,1974	
.110	388.949	17	19	DEC 21,1974	
.128	389.089	17	20	DEC 21,1974	
.146	389.275	17	21	DEC 21,1974	
.165	389.368	17	22	DEC 21,1974	
.183	389.508	17	23	DEC 21,1974	
.201	389.554	17	24	DEC 21,1974	
.219	389.601	17	25	DEC 21,1974	
.238	389.648	17	26	DEC 21,1974	
.256	389.694	17	27	DEC 21,1974	
.274	389.694	17	28	DEC 21,1974	
.292	389.787	17	30	DEC 21,1974	
.311	389.834	17	31	DEC 21,1974	
.329	389.834	17	32	DEC 21,1974	
.347	389.834	17	33	DEC 21,1974	
.366	389.927	17	34	DEC 21,1974	
.384	389.880	17	35	DEC 21,1974	
.402	389.880	17	36	DEC 21,1974	
.420	389.880	17	37	DEC 21,1974	
.439	389.880	17	38	DEC 21,1974	
.457	389.927	17	39	DEC 21,1974	
.475	389.973	17	41	DEC 21,1974	
.494	390.020	17	42	DEC 21,1974	
.512	390.020	17	43	DEC 21,1974	
.530	390.067	17	44	DEC 21,1974	
.548	390.020	17	45	DEC 21,1974	
.567	390.299	17	46	DEC 21,1974	END SHUT IN

32 POINTS REPORTED THIS RUN

JOB NUMBER
SPG-11221-MPT 2

DATE OF JOB
DECEMBER 21 AND 22, 1974

GAUGE/RUN NUMBER
136 MPT-2 FINAL FLOW

DATE OF RUN

SPERRY-SUN
PRECISION SUBSURFACE PRESSURE GAUGE REPORT

DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
0.000	390.299	17	46	DEC 21,1974	FINAL FLOW
.017	390.020	17	47	DEC 21,1974	
.035	389.973	17	48	DEC 21,1974	
.052	389.973	17	49	DEC 21,1974	
.069	390.020	17	50	DEC 21,1974	
.087	390.113	17	51	DEC 21,1974	
.104	390.020	17	52	DEC 21,1974	
.121	390.346	17	53	DEC 21,1974	
.139	390.020	17	54	DEC 21,1974	
.156	390.020	17	55	DEC 21,1974	
.174	390.113	17	56	DEC 21,1974	
.191	390.020	17	57	DEC 21,1974	
.208	390.346	17	58	DEC 21,1974	
.226	390.113	18	00	DEC 21,1974	
.243	390.160	18	01	DEC 21,1974	
.260	390.067	18	02	DEC 21,1974	
.278	390.067	18	03	DEC 21,1974	
.295	390.160	18	04	DEC 21,1974	
.312	390.067	18	05	DEC 21,1974	
.330	390.113	18	06	DEC 21,1974	
.347	390.113	18	07	DEC 21,1974	
.364	390.113	18	08	DEC 21,1974	
.382	390.020	18	09	DEC 21,1974	
.399	390.067	18	10	DEC 21,1974	
.417	390.067	18	11	DEC 21,1974	
.434	390.067	18	12	DEC 21,1974	
.451	390.067	18	13	DEC 21,1974	
.469	390.067	18	14	DEC 21,1974	
.486	390.160	18	15	DEC 21,1974	
.503	390.113	18	16	DEC 21,1974	
.521	390.113	18	17	DEC 21,1974	
.538	390.113	18	18	DEC 21,1974	
.555	390.067	18	19	DEC 21,1974	
.573	390.113	18	20	DEC 21,1974	
.590	390.067	18	21	DEC 21,1974	
.607	390.113	18	22	DEC 21,1974	
.625	390.579	18	23	DEC 21,1974	
.642	390.113	18	25	DEC 21,1974	
.660	390.113	18	26	DEC 21,1974	
.677	390.253	18	27	DEC 21,1974	

JOB NUMBER
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GAUGE/RUN NUMBER
136 MPT-2 FINAL FLOW

DATE OF RUN

SPERRY-SUN
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DELTA TIME	PRESSURE (PSI)	TIME HR	MIN	DATE	COMMENTS
,694	390,113	18	28	DEC 21,1974	
.712	390,253	18	29	DEC 21,1974	
.729	390.160	18	30	DEC 21,1974	
.746	390.160	18	31	DEC 21,1974	
,764	390,160	18	32	DEC 21,1974	
,781	390,160	18	33	DEC 21,1974	
.798	390,299	18	34	DEC 21,1974	
,816	390.160	18	35	DEC 21,1974	
,833	390,160	18	36	DEC 21,1974	
.850	390.113	18	37	DEC 21,1974	
,868	390.206	18	38	DEC 21,1974	
.885	390,160	18	39	DEC 21,1974	
,903	390.160	18	40	DEC 21,1974	
,920	390.160	18	41	DEC 21,1974	
,937	390,206	18	42	DEC 21,1974	
,955	390.160	18	43	DEC 21,1974	
,972	390.160	18	44	DEC 21,1974	
.989	390,206	18	45	DEC 21,1974	
1,007	390.206	18	46	DEC 21,1974	
1,024	390.206	18	47	DEC 21,1974	
1.041	390.206	18	48	DEC 21,1974	
1,059	390.253	18	50	DEC 21,1974	
1.076	390,253	18	51	DEC 21,1974	
1.093	390,253	18	52	DEC 21,1974	
1,111	390,253	18	53	DEC 21,1974	
1,128	390.253	18	54	DEC 21,1974	
1,145	390.253	18	55	DEC 21,1974	
1,163	390.253	18	56	DEC 21,1974	
1,180	390.253	18	57	DEC 21,1974	
1,198	390.253	18	58	DEC 21,1974	
1,215	390.253	18	59	DEC 21,1974	
1,232	390,346	19	00	DEC 21,1974	
1,250	390.299	19	01	DEC 21,1974	
1.267	390,299	19	02	DEC 21,1974	
1,284	392,766	19	03	DEC 21,1974	
1,302	389,880	19	04	DEC 21,1974	
1,319	389,089	19	05	DEC 21,1974	
1,336	389,973	19	06	DEC 21,1974	
1,354	390.160	19	07	DEC 21,1974	
1,371	396,956	19	08	DEC 21,1974	

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1,388	374,751	19	09	DEC 21,1974	
1,406	372.517	19	10	DEC 21,1974	
1,423	373.262	19	11	DEC 21,1974	
1,441	372,331	19	12	DEC 21,1974	START JETTING
1,458	372.098	19	13	DEC 21,1974	AT 37 GPM
1,475	371,586	19	15	DEC 21,1974	
1,493	371,260	19	16	DEC 21,1974	
1,510	370.794	19	17	DEC 21,1974	
1,527	370.515	19	18	DEC 21,1974	
1,545	370,375	19	19	DEC 21,1974	
1,562	370.050	19	20	DEC 21,1974	
1,579	369.724	19	21	DEC 21,1974	
1,597	369.770	19	22	DEC 21,1974	
1,614	369.584	19	23	DEC 21,1974	
1,631	369.444	19	24	DEC 21,1974	
1,649	369.305	19	25	DEC 21,1974	
1,666	369,258	19	26	DEC 21,1974	
1,684	369.212	19	27	DEC 21,1974	
1,701	368,979	19	28	DEC 21,1974	
1,718	368.886	19	29	DEC 21,1974	
1,736	368.886	19	30	DEC 21,1974	
1,753	368.700	19	31	DEC 21,1974	
1,770	368.653	19	32	DEC 21,1974	
1,788	368.560	19	33	DEC 21,1974	
1,805	368.513	19	34	DEC 21,1974	
1,822	368.420	19	35	DEC 21,1974	
1,840	368.420	19	36	DEC 21,1974	
1,857	368,420	19	37	DEC 21,1974	
1,874	368.327	19	38	DEC 21,1974	
1,892	368.327	19	40	DEC 21,1974	
1,909	368,327	19	41	DEC 21,1974	
1,927	368.187	19	42	DEC 21,1974	
1,944	368,187	19	43	DEC 21,1974	
1,961	368.187	19	44	DEC 21,1974	
1,979	368.187	19	45	DEC 21,1974	
1,996	368.094	19	46	DEC 21,1974	
2,013	368.094	19	47	DEC 21,1974	
2,031	368.141	19	48	DEC 21,1974	
2,048	367,862	19	49	DEC 21,1974	
2,065	368,048	19	50	DEC 21,1974	

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2,083	367,908	19	51	DEC 21,1974	
2,100	367,955	19	52	DEC 21,1974	
2,117	367,908	19	53	DEC 21,1974	
2,135	367.862	19	54	DEC 21,1974	
2,152	367,862	19	55	DEC 21,1974	
2,169	367,769	19	56	DEC 21,1974	
2,187	367,815	19	57	DEC 21,1974	
2,204	367,908	19	58	DEC 21,1974	
2,222	367.722	19	59	DEC 21,1974	
2,239	367,769	20	00	DEC 21,1974	
2,256	367.629	20	01	DEC 21,1974	
2,274	367,629	20	02	DEC 21,1974	
2,291	367.629	20	03	DEC 21,1974	
2,308	367,629	20	05	DEC 21,1974	
2,326	367.629	20	06	DEC 21,1974	
2,343	367,536	20	07	DEC 21,1974	
2,360	367,629	20	08	DEC 21,1974	
2.378	366.791	20	09	DEC 21,1974	
2,395	358,226	20	10	DEC 21,1974	
2,412	369,212	20	11	DEC 21,1974	
2,430	377,591	20	12	DEC 21,1974	
2,447	382.386	20	13	DEC 21,1974	END JETTING
2,465	384,341	20	14	DEC 21,1974	
2,482	385.132	20	15	DEC 21,1974	
2,499	385,691	20	16	DEC 21,1974	
2,517	386,156	20	17	DEC 21,1974	
2,534	386.436	20	18	DEC 21,1974	
2,551	386,668	20	19	DEC 21,1974	
2.569	386,901	20	20	DEC 21,1974	
2,586	387.087	20	21	DEC 21,1974	
2,603	387.273	20	22	DEC 21,1974	
2.621	387.413	20	23	DEC 21,1974	
2,638	387,599	20	24	DEC 21,1974	
2,655	387.599	20	25	DEC 21,1974	
2,673	387,739	20	26	DEC 21,1974	
2,690	387.739	20	27	DEC 21,1974	
2,708	387.972	20	28	DEC 21,1974	
2,725	387,739	20	29	DEC 21,1974	
2,742	388,111	20	31	DEC 21,1974	
2,760	388,111	20	32	DEC 21,1974	

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2.777	388.251	20	33	DEC 21,1974	
2.794	388.298	20	34	DEC 21,1974	
2.812	388.018	20	35	DEC 21,1974	
2.829	388.437	20	36	DEC 21,1974	
2.846	388.437	20	37	DEC 21,1974	
2.864	388.018	20	38	DEC 21,1974	
2.881	388.530	20	39	DEC 21,1974	
2.898	388.577	20	40	DEC 21,1974	
2.916	388.530	20	41	DEC 21,1974	
2.933	388.670	20	42	DEC 21,1974	
2.951	388.717	20	43	DEC 21,1974	
2.968	388.763	20	44	DEC 21,1974	
2.985	388.763	20	45	DEC 21,1974	
3.003	388.670	20	46	DEC 21,1974	
3.020	388.810	20	47	DEC 21,1974	
3.037	388.810	20	48	DEC 21,1974	
3.055	388.903	20	49	DEC 21,1974	
3.072	388.903	20	50	DEC 21,1974	
3.089	388.949	20	51	DEC 21,1974	
3.107	388.623	20	52	DEC 21,1974	
3.124	388.949	20	53	DEC 21,1974	
3.141	388.949	20	54	DEC 21,1974	
3.159	389.042	20	56	DEC 21,1974	
3.176	389.042	20	57	DEC 21,1974	
3.194	389.042	20	58	DEC 21,1974	
3.211	389.135	20	59	DEC 21,1974	
3.228	388.763	21	00	DEC 21,1974	
3.246	389.182	21	01	DEC 21,1974	
3.263	389.182	21	02	DEC 21,1974	
3.280	389.182	21	03	DEC 21,1974	
3.298	389.182	21	04	DEC 21,1974	
3.315	389.229	21	05	DEC 21,1974	
3.332	389.229	21	06	DEC 21,1974	
3.350	389.275	21	07	DEC 21,1974	
3.367	389.275	21	08	DEC 21,1974	
3.384	389.322	21	09	DEC 21,1974	
3.402	389.322	21	10	DEC 21,1974	
3.419	389.368	21	11	DEC 21,1974	
3.436	389.368	21	12	DEC 21,1974	
3.454	389.368	21	13	DEC 21,1974	

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3.471	389.368	21	14	DEC 21,1974	
3.489	389.368	21	15	DEC 21,1974	
3.506	389.415	21	16	DEC 21,1974	
3.523	389.415	21	17	DEC 21,1974	
3.541	389.461	21	18	DEC 21,1974	
3.558	389.461	21	19	DEC 21,1974	
3.575	389.461	21	21	DEC 21,1974	
3.593	389.461	21	22	DEC 21,1974	
3.610	389.508	21	23	DEC 21,1974	
3.627	389.508	21	24	DEC 21,1974	
3.645	389.508	21	25	DEC 21,1974	
3.662	389.508	21	26	DEC 21,1974	
3.679	389.508	21	27	DEC 21,1974	
3.697	389.508	21	28	DEC 21,1974	
3.714	389.554	21	29	DEC 21,1974	
3.732	389.554	21	30	DEC 21,1974	
3.749	389.554	21	31	DEC 21,1974	
3.766	389.554	21	32	DEC 21,1974	
3.784	389.601	21	33	DEC 21,1974	
3.801	389.648	21	34	DEC 21,1974	
3.818	389.648	21	35	DEC 21,1974	
3.836	389.648	21	36	DEC 21,1974	
3.853	389.694	21	37	DEC 21,1974	
3.870	389.694	21	38	DEC 21,1974	
3.888	389.694	21	39	DEC 21,1974	
3.905	389.741	21	40	DEC 21,1974	
3.922	389.741	21	41	DEC 21,1974	20 GPM DOWN ANNULUS
3.940	389.741	21	42	DEC 21,1974	
3.957	389.741	21	43	DEC 21,1974	
3.975	389.834	21	44	DEC 21,1974	
3.992	389.694	21	46	DEC 21,1974	
4.009	389.834	21	47	DEC 21,1974	
4.027	389.834	21	48	DEC 21,1974	
4.044	389.834	21	49	DEC 21,1974	
4.061	389.834	21	50	DEC 21,1974	
4.079	389.834	21	51	DEC 21,1974	
4.096	389.787	21	52	DEC 21,1974	
4.113	389.880	21	53	DEC 21,1974	
4.131	389.880	21	54	DEC 21,1974	
4.148	389.880	21	55	DEC 21,1974	

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4,165	389,880	21	56	DEC 21,1974	
4,183	389,880	21	57	DEC 21,1974	
4,200	389,927	21	58	DEC 21,1974	
4,218	389.927	21	59	DEC 21,1974	
4,235	389,927	22	00	DEC 21,1974	
4,252	389,927	22	01	DEC 21,1974	40 GPM DOWN
4,270	389,787	22	02	DEC 21,1974	ANNULUS
4,287	389.927	22	03	DEC 21,1974	
4,304	389,927	22	04	DEC 21,1974	
4,322	389,927	22	05	DEC 21,1974	
4,339	389.927	22	06	DEC 21,1974	
4.356	389,973	22	07	DEC 21,1974	
4,374	389.973	22	08	DEC 21,1974	
4,391	389,973	22	09	DEC 21,1974	
4.408	390,020	22	11	DEC 21,1974	
4,426	389,973	22	12	DEC 21,1974	
4,443	389.973	22	13	DEC 21,1974	
4,460	390.020	22	14	DEC 21,1974	
4,478	390.067	22	15	DEC 21,1974	
4,495	390.067	22	16	DEC 21,1974	
4,513	390,067	22	17	DEC 21,1974	
4,530	390,067	22	18	DEC 21,1974	
4,547	390,113	22	19	DEC 21,1974	
4,565	390,113	22	20	DEC 21,1974	
4,582	390,113	22	21	DEC 21,1974	
4,599	390,160	22	22	DEC 21,1974	60 GPM DOWN
4,617	390,253	22	23	DEC 21,1974	ANNULUS
4,634	390,253	22	24	DEC 21,1974	
4,651	390,253	22	25	DEC 21,1974	
4,669	390.253	22	26	DEC 21,1974	
4,686	390,253	22	27	DEC 21,1974	
4,703	390,299	22	28	DEC 21,1974	
4,721	390,253	22	29	DEC 21,1974	
4,738	390,253	22	30	DEC 21,1974	
4,756	390,253	22	31	DEC 21,1974	
4,773	390,253	22	32	DEC 21,1974	
4,790	390,253	22	33	DEC 21,1974	
4,808	390,299	22	34	DEC 21,1974	
4,825	390,253	22	35	DEC 21,1974	
4,842	390,299	22	37	DEC 21,1974	

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4.860	390.299	22	38	DEC 21,1974	
4.877	390.299	22	39	DEC 21,1974	
4.894	390.299	22	40	DEC 21,1974	
4.912	390.299	22	41	DEC 21,1974	
4.929	390.299	22	42	DEC 21,1974	START DECLINE
4.946	390.392	22	43	DEC 21,1974	
4.964	390.392	22	44	DEC 21,1974	
4.981	390.392	22	45	DEC 21,1974	
4.999	390.392	22	46	DEC 21,1974	
5.016	390.392	22	47	DEC 21,1974	
5.033	390.392	22	48	DEC 21,1974	
5.051	390.392	22	49	DEC 21,1974	
5.068	390.392	22	50	DEC 21,1974	
5.085	390.392	22	51	DEC 21,1974	
5.103	390.439	22	52	DEC 21,1974	
5.120	390.439	22	53	DEC 21,1974	
5.137	390.392	22	54	DEC 21,1974	
5.155	390.439	22	55	DEC 21,1974	
5.172	390.439	22	56	DEC 21,1974	
5.189	390.439	22	57	DEC 21,1974	
5.207	390.439	22	58	DEC 21,1974	
5.224	390.439	22	59	DEC 21,1974	
5.242	390.485	23	00	DEC 21,1974	
5.259	390.485	23	02	DEC 21,1974	
5.276	390.485	23	03	DEC 21,1974	END DECLINE
5.294	390.439	23	04	DEC 21,1974	
5.311	390.485	23	05	DEC 21,1974	
5.328	390.485	23	06	DEC 21,1974	
5.346	390.485	23	07	DEC 21,1974	
5.363	390.532	23	08	DEC 21,1974	
5.380	390.485	23	09	DEC 21,1974	
5.398	390.811	23	10	DEC 21,1974	
5.415	391.230	23	11	DEC 21,1974	
5.432	391.184	23	12	DEC 21,1974	
5.450	391.230	23	13	DEC 21,1974	2 GPM INSIDE
5.467	391.323	23	14	DEC 21,1974	DRILL PIPE
5.484	391.230	23	15	DEC 21,1974	
5.502	391.277	23	16	DEC 21,1974	
5.519	391.323	23	17	DEC 21,1974	
5.537	391.323	23	18	DEC 21,1974	

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5,554	391,277	23	19	DEC 21,1974	
5,571	391,323	23	20	DEC 21,1974	
5,589	391,230	23	21	DEC 21,1974	
5,606	391.323	23	22	DEC 21,1974	
5,623	391.230	23	23	DEC 21,1974	
5,641	391.323	23	24	DEC 21,1974	
5,658	391,230	23	25	DEC 21,1974	
5,675	391,230	23	27	DEC 21,1974	
5,693	391,277	23	28	DEC 21,1974	
5,710	391,277	23	29	DEC 21,1974	
5.727	391.277	23	30	DEC 21,1974	
5,745	391.277	23	31	DEC 21,1974	
5.762	391.742	23	32	DEC 21,1974	
5,780	392.115	23	33	DEC 21,1974	5 DPM INSIDE DRILL PIPE
5,797	392.254	23	34	DEC 21,1974	
5.814	392.301	23	35	DEC 21,1974	
5.832	392.441	23	36	DEC 21,1974	
5.849	392.580	23	37	DEC 21,1974	
5.866	392,720	23	38	DEC 21,1974	
5,884	392.766	23	39	DEC 21,1974	
5,901	392.766	23	40	DEC 21,1974	
5,918	392,813	23	41	DEC 21,1974	
5,936	392,813	23	42	DEC 21,1974	
5,953	392.813	23	43	DEC 21,1974	
5,970	392.860	23	44	DEC 21,1974	
5,988	392.860	23	45	DEC 21,1974	
6,005	392,906	23	46	DEC 21,1974	
6,023	392.860	23	47	DEC 21,1974	
6.040	392.906	23	48	DEC 21,1974	
6,057	392,860	23	49	DEC 21,1974	
6,075	392,953	23	50	DEC 21,1974	
6,092	392.953	23	52	DEC 21,1974	
6,109	392.906	23	53	DEC 21,1974	
6,127	394,163	23	54	DEC 21,1974	10 GPM INSIDE DRILL PIPE
6,144	395.234	23	55	DEC 21,1974	
6,161	395.606	23	56	DEC 21,1974	
6,179	395,932	23	57	DEC 21,1974	
6.196	395.979	23	58	DEC 21,1974	
6,213	396,118	23	59	DEC 21,1974	
6,231	396,165	00	00	DEC 22,1974	

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6,248	396,258	00	01	DEC 22,1974	
6,266	396,304	00	02	DEC 22,1974	
6,283	396,397	00	03	DEC 22,1974	
6,300	396.397	00	04	DEC 22,1974	
6,318	396,444	00	05	DEC 22,1974	
6,335	396.537	00	06	DEC 22,1974	
6,352	396.537	00	07	DEC 22,1974	
6,370	396.584	00	08	DEC 22,1974	
6,387	396.584	00	09	DEC 22,1974	
6,404	396.630	00	10	DEC 22,1974	
6.422	396,723	00	11	DEC 22,1974	
6,439	396.630	00	12	DEC 22,1974	
6,456	398,725	00	13	DEC 22,1974	20 GPM INSIDE
6,474	400.680	00	14	DEC 22,1974	DRILL PIPE
6,491	401,658	00	15	DEC 22,1974	
6,508	402,263	00	17	DEC 22,1974	
6,526	402.635	00	18	DEC 22,1974	
6,543	402.822	00	19	DEC 22,1974	
6.561	403.054	00	20	DEC 22,1974	
6,578	403.147	00	21	DEC 22,1974	
6.595	403.334	00	22	DEC 22,1974	
6.613	403,380	00	23	DEC 22.1974	
6,630	403.520	00	24	DEC 22,1974	
6.647	403,566	00	25	DEC 22,1974	
6.665	403,659	00	26	DEC 22,1974	
6,682	403,753	00	27	DEC 22,1974	
6,699	403.799	00	28	DEC 22,1974	
6.717	403.892	00	29	DEC 22,1974	
6.734	403.985	00	30	DEC 22,1974	
6,751	403,985	00	31	DEC 22,1974	
6,769	404.078	00	32	DEC 22,1974	
6,786	404.078	00	33	DEC 22,1974	40 GPM INSIDE
6,804	402,961	00	34	DEC 22,1974	DRILL PIPE
6.821	404,218	00	35	DEC 22,1974	
6.838	410,037	00	36	DEC 22,1974	OVERFLOW AT
6,856	411,201	00	37	DEC 22,1974	2 GPM
6.873	411.946	00	38	DEC 22,1974	
6.890	412,365	00	39	DEC 22,1974	
6,908	412,783	00	40	DEC 22,1974	
6.925	412,970	00	42	DEC 22,1974	

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TIME	(PSI)	HR	MIN		
6,942	413,202	00	43	DEC 22,1974	
6,960	413,202	00	44	DEC 22,1974	
6,977	413,342	00	45	DEC 22,1974	
6,994	413,435	00	46	DEC 22,1974	
7,012	413,528	00	47	DEC 22,1974	
7,029	413,668	00	48	DEC 22,1974	
7,047	413,715	00	49	DEC 22,1974	START DECLINE
7,064	404,870	00	50	DEC 22,1974	
7,081	398,539	00	51	DEC 22,1974	
7,099	396,118	00	52	DEC 22,1974	
7,116	395,047	00	53	DEC 22,1974	
7,133	394,396	00	54	DEC 22,1974	
7,151	393,977	00	55	DEC 22,1974	
7,168	393,651	00	56	DEC 22,1974	
7,185	393,418	00	57	DEC 22,1974	
7,203	393,279	00	58	DEC 22,1974	
7,220	392,999	00	59	DEC 22,1974	
7,237	392,906	01	00	DEC 22,1974	
7,255	392,766	01	01	DEC 22,1974	
7,272	392,627	01	02	DEC 22,1974	
7,290	392,534	01	03	DEC 22,1974	
7,307	392,487	01	04	DEC 22,1974	
7,324	392,348	01	05	DEC 22,1974	
7,342	392,254	01	06	DEC 22,1974	
7,359	392,161	01	08	DEC 22,1974	
7,376	392,115	01	09	DEC 22,1974	END DECLINE
7,394	392,115	01	10	DEC 22,1974	
7,411	392,068	01	11	DEC 22,1974	
7,428	392,022	01	12	DEC 22,1974	
7,446	391,975	01	13	DEC 22,1974	
7,463	391,882	01	14	DEC 22,1974	
7,480	391,882	01	15	DEC 22,1974	
7,498	391,835	01	16	DEC 22,1974	
7,515	391,789	01	17	DEC 22,1974	
7,533	391,742	01	18	DEC 22,1974	
7,550	391,742	01	19	DEC 22,1974	
7,567	391,742	01	20	DEC 22,1974	END TEST

437 POINTS REPORTED THIS RUN

Aquifer Data - Pumping Tests

II B-9 AQUIFER DATA - PUMPING TESTS

PUMPING TEST OF AT-1

The C-b Shale Oil Project has now completed the upper zone phase of the pumping test of AT-1. The test was done for two principal reasons:

1. To fulfill the requirement of the Federal Oil Shale Lease regarding pump tests of water bearing zones; and
2. To evaluate the ground water hydrology of Tract C-b for mine engineering purposes.

In the exploration Plan submitted for Tract C-b, it was proposed to drill one major test well, AT-1, in the center of the Tract and test the upper zone and lower zone aquifers, above and below the Mahogany zone respectively. Drilling of the test well AT-1 commenced on June 15, 1974. It was drilled at a diameter of 12½ inches to a depth of 1338 feet, just a short distance into the Mahogany zone. Steel casing was set in the hole and a diesel generator powered submersible pump was lowered to the bottom of the hole in preparation for the start of pumping.

Initially, the test was designed with close-in observation wells only. A thorough review by the operator and other venture participants, however, produced the recommendation that additional zones should be monitored--particularly to determine the vertical leakage factor through the Mahogany. Also, it was decided to add three-far-out observation wells, completed above and below the Mahogany zone. This gave a total array of four close-in wells and three distant wells. Three of the close-in wells (AT-1a, AT-1c, and AT-1d) were randomly spaced around AT-1. One well (AT-1b) was positioned along the primary fracture trend, North 70° West. (See Figure II B-9.1 on page II B-2144.)

By the time a decision had been reached to monitor three zones, AT-1a and SG-10 had already been drilled and could not be completed to monitor all three of the desired intervals. Therefore, two twin holes were drilled, AT-1a1 and SG-10a, to monitor the upper zone aquifer and complete the monitoring package. The distant wells SG-11, SG-6, and SG-10, had originally been designed as core holes only. As a result of the hydrology considerations, however, they were cored and then completed as ground water observation wells for the pumping test. Table II B-9.1 presents monitored zone and location information for each of these drilled holes.

As the summer drilling season progressed, the complexity and sophistication of the pumping test continued to increase. Well completion techniques had to be designed for each of the multi-zone wells. Up to three strings of small diameter 2-3/8 inch steel tubing were set into each open core hole or well and cemented in place. Once installed the strings were

selectively perforated to monitor either the upper aquifer, the lower aquifer, or a zone called the Mahogany Vugular at the base of the mining interval. (See Figure II B-9.3 on page II B-2146.) Quarterly Report #1 contains much of the data which document these efforts. Eventually, all of the wells were drilled and completed, and by October the generator and pump appeared ready to go.

In mid-October, however, two new problems emerged. Observation well AT-1b was logged and holes were discovered in the casing strings. The well had been considered quite important since with respect to AT-1, it was oriented along the North 70° West fracture trend. This concern resulted in the implementation of an extensive program to salvage AT-1b. One of the strings was eventually salvaged to monitor the upper zone aquifer; the other two were abandoned and were not used during the test.

A second problem developed when the Sperry-Sun permagauges were installed. The surface recorders appeared to be sensitive to unknown natural causes. Temperature change, in particular, caused at least some of the problem. Insulated heating sheds were therefore constructed at each well location to eliminate any possible temperature fluctuations. Also, the recorders needed AC power and the test could not commence until power lines were installed and/or appropriate battery packs prepared. The power situation was eventually overcome, and the pumping equipment was given a trial run. (As a note, it was necessary to secure a fuel allocation from the regional office of the Federal Energy Administration of 30,000 gallons of diesel fuel per month to supply the 40 KW generator which powered the submersible pump.)

On November 20, the Sperry-Sun instruments were officially turned on to record background pressure, prerequisite to commencing the pumping test. This was done to document any barometric effects or other cyclic water level changes caused by natural events. After background readings were collected for approximately ten days, the pump was turned on November 30, 1974, at 9:07 a.m.

A chronology is given below which lists the sequence of events after that date. An initial pumping phase of 24 days was followed by a recovery phase of five days, and closed with a pulse pumping phase of five days. Recovery was observed in AT-1 for 13 days after the pulse, until the pump was pulled for deepening of the well. Pressure responses were observed continuously in the other observation wells, however, throughout the period. Pin hole leaks developed in several of the permagauges during the test, but no other significant or major problems were encountered.

Sequence of Events
Upper Aquifer Pump Test

Pump on @ 9:07 A.M., November 30, 1974, Initial Drawdown Phase

Pump off @ 9:07 A.M., December 23, 1974, Initial Recovery Phase

Pump on @ 9:07 A.M., December 28, 1974, Pulse Drawdown

Pump of @ 9:07 A.M., January 2, 1975, Final Recovery

End of Test, January 15, 1975

Begin Deepening of Well into Lower Aquifer for Lower Aquifer Pump Test

Hydrologists had previously determined during the drilling of AT-1 that the water produced by the pumping well would probably have less than 1000 mg/l of dissolved solids. This was substantiated during the test. The sulfate content and fluoride content, however, changed as the test progressed. These changes are discussed in Section II B-6 of this report. A two acre-foot holding pond had been constructed at the aquifer test site to be used in the event that poor quality water was encountered. The pond was never used because the dissolved solid content of the AT-1 discharge was quite low. Discharge water was collected in a ditch at the well head and spread across the adjacent hillside below. Eventually, some of the discharge water did reach Piceance Creek via Cottonwood Gulch (normally dry) and U.S.G.S. field technicians collected a sample at that station on December 4, 1974. (The analytical results are included in Section II A-1, Surface Streams, of this report.) For all intents and purposes the chemical quality of their sample is identical to that of the ground water sample collected at the AT-1 well head on December 23, 1974. The data for that well head sample are included in Section II B-6, Water Quality-Pump Tests, of this report. The U.S.G.S. data also indicated that less than one-half of the well discharge reached Piceance Creek. The majority of the discharge water seeped into the two miles of dry stream bed between AT-1 and the gauging station on Cottonwood Gulch.

Throughout the test, field technicians monitored the conductivity of discharge water. The conductivity remained below 1500 micromhos per centimeter throughout the test. The initial pumping rate averaged over 400 gallons per minute, but the rate fell off as water levels were drawn down. Eventually, the discharge stabilized at 356 gallons per minute.

Results of the Pumping Test: The pressure responses from the seven upper zone monitoring strings document water level changes within a complex fractured rock system. Reservoir simulation experts have divided the simplified upper zone - lower zone aquifer system into several layers or individual units - based on jetting test data, core data, rock compressibility, and geologic interpretation. Pressure response histories from the test are currently being input to this multi-layered model. Eventually, the model will be modified to account for the pressure changes observed during the pumping test. Once this is done and the pressure responses are "matched," the impacts of the ground water system on an underground mine can be defined. These data will help to determine the effective porosity and permeability of the upper zone aquifer. This information will lead to a value for capacity, or gross water production potential. Table II B-9.2 on page II B-2147 presents the initial transmissivities and storage coefficients calculated from results of the Pumping Test. Summary Report #1 (pp. 32-34) contains a discussion of the method used to calculate these values.

The primary conclusion deduced from the upper aquifer pumping test is that under Tract C-b (in the vicinity of Section 7, at least) the Mahogany zone of rich oil shale completely separates ground water above it from ground water below it. No pressure changes were observed in any of the lower strings in any well -- in spite of the fact that water levels were drawn down in the upper aquifer several hundred feet at AT-1 and up to 60 feet at SG-11, the most distant observation point. The Project's reservoir simulation group has determined that the vertical permeability of portions of the Mahogany zone is less than .1 millidarcy, making them essentially impermeable. The test data also show that directional permeability exists in the upper zone aquifer. Water levels in the upper string of SG-11 responded after only ten hours of pumping. Hydrologists had some doubt as to whether it would respond at all, because of the distance from AT-1 (over 3000 feet). The orientation of the directional permeability, AT-1 to SG-11, coincides with several major linements present on the Tract, i.e., stream orientations, etc.

The test also led to additional hydrological studies at SG-17 (see Section II B-8, Drill Stem Tests, of this report) and SG-1 (data and results will be included in Quarterly Report #3). The lower zone phase of the pumping test commenced on February 21, and to date, appears to substantiate the upper zone results.

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TABLE II B-9.1

AQUIFER TEST OBSERVATION WELL DATA

WELL NO.	DISTANCE (IN FEET) FROM AT-1	ZONES MONITORED
AT-1	-	Upper Aquifer
AT-1a	79 feet	Lower Aquifer Mining Zone
AT-1a1	85 feet	Upper Aquifer
AT-1b	102 feet	Upper Aquifer
AT-1c	102 feet	Upper Aquifer Mahogany Vugular Lower Aquifer
AT-1d	127 feet	Upper Aquifer Mahogany Vugular
SG-6	1289 feet	Upper Aquifer Mahogany Vugular Lower Aquifer
SG-10	2339 feet	Lower-lower Aquifer Mahogany Vugular
SG-10a	2350 feet	Upper Aquifer
SG-11	3236 feet	Upper Aquifer Mahogany Vugular Lower Aquifer

Mahogany Vugular is the interval between the base of the Mining Zone and the B groove.

FIGURE II B-9.1
TRACT C-b
Aquifer Test Well Locations

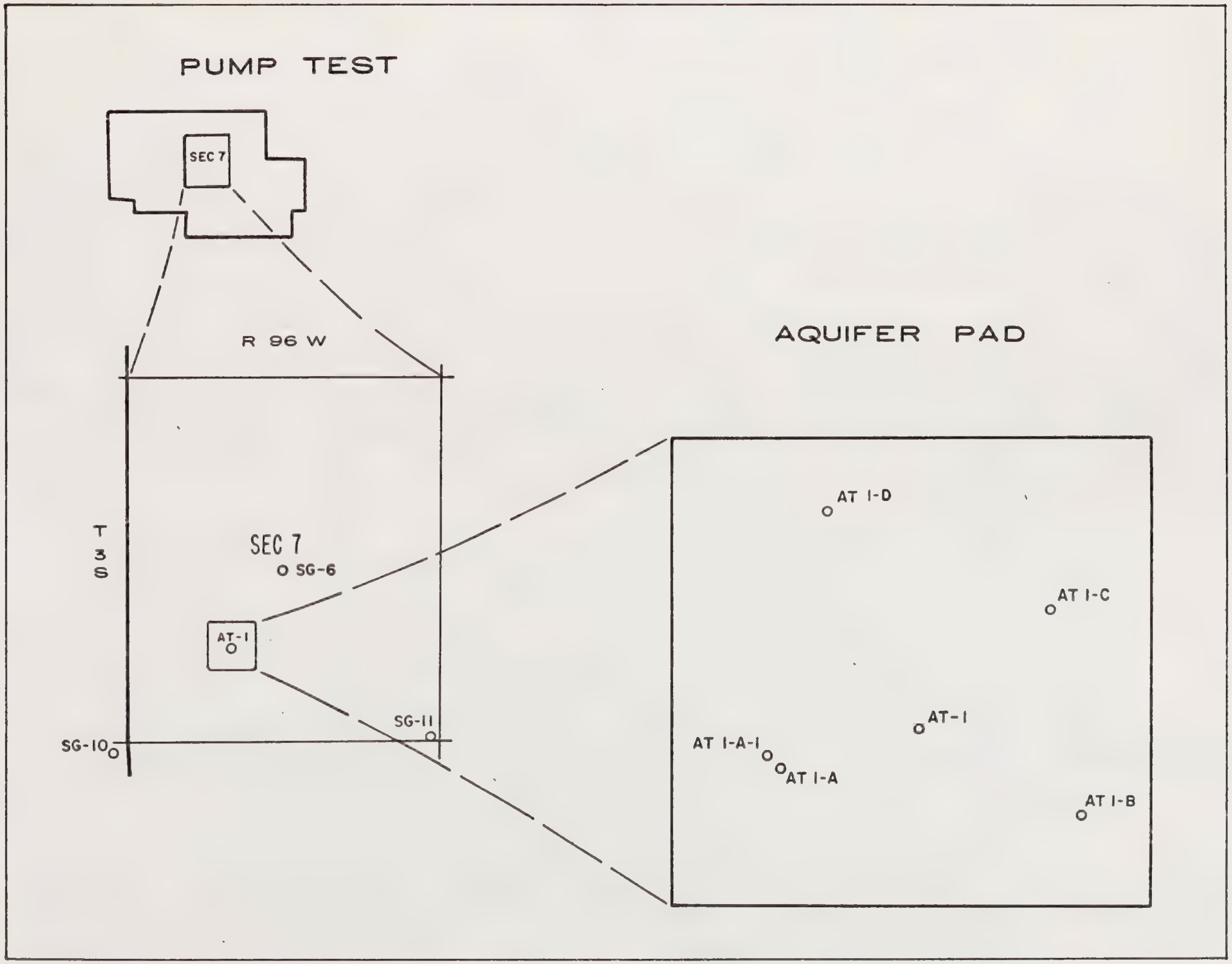
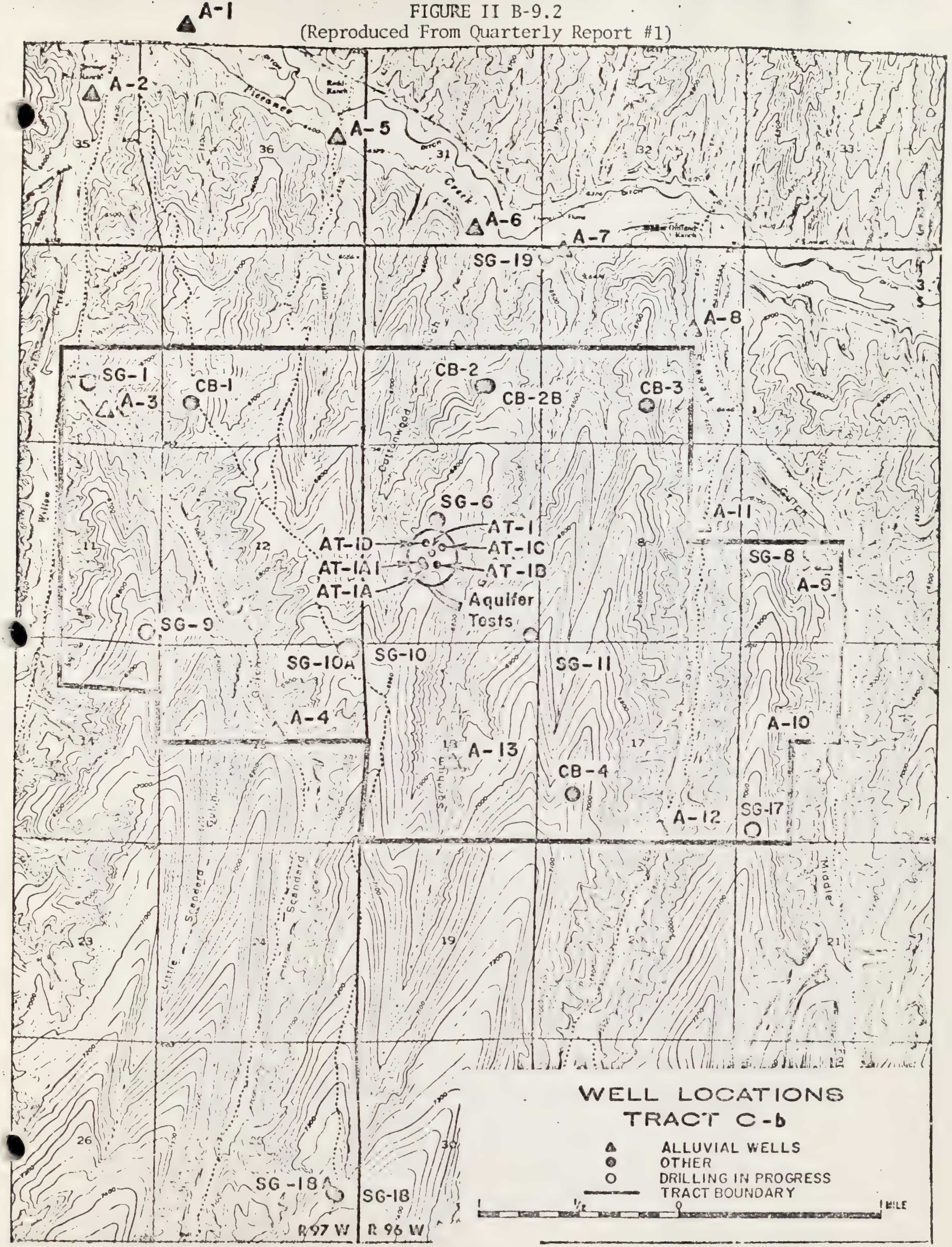
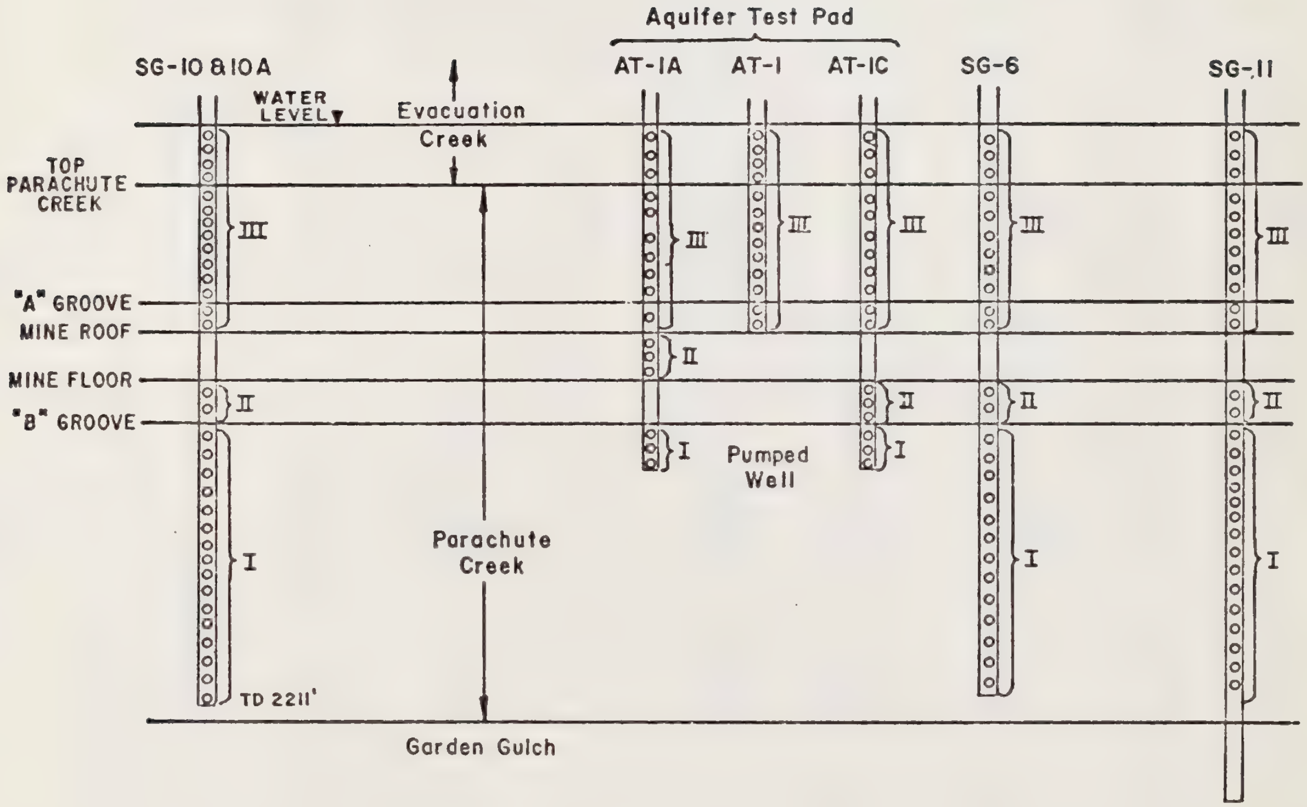
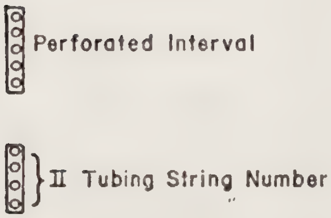

PUMP TEST
SEC 7
R 96 W
T 3 S
SEC 7
SG-6
AT-1
SG-10
SG-11
AQUIFER PAD
AT 1-D
AT 1-C
AT-1
AT 1-A-1
AT 1-A
AT 1-B

FIGURE II B-9.2
(Reproduced From Quarterly Report #1)


WELL LOCATIONS
TRACT C-b
ALLUVIAL WELLS
OTHER
DRILLING IN PROGRESS
TRACT BOUNDARY
1
1/2
0
1 MILE
A-1
A-2
A-3
A-4
A-5
A-6
A-7
A-8
A-9
A-10
A-11
A-12
A-13
SG-1
SG-6
SG-8
SG-9
SG-10
SG-10A
SG-11
SG-17
SG-18
SG-18A
SG-19
CB-1
CB-2
CB-2B
CB-3
CB-4
AT-1
AT-1C
AT-1B
AT-1D
AT-1A1
AT-1A
Aquifer Tests
Piceance
Creek
Ditch
Willow
Cottonwood
Stewart
Gutter
Little Scandard
Scandard
Sorghum
Middle
35
36
31
32
33
11
12
8
13
17
19
20
21
23
24
26
30
R97 W
R 96 W



Aquifer Test Pad
SG-10 & 10A
AT-1A
AT-1
AT-1C
SG-6
SG-11
WATER LEVEL
Evacuation Creek
TOP PARACHUTE CREEK
"A" GROOVE
MINE ROOF
MINE FLOOR
"B" GROOVE
III
II
I
Pumped Well
Parachute Creek
TD 2211'
Garden Gulch



Perforated Interval
II Tubing String Number

FIGURE II B-9.3

SCHEMATIC CROSS-SECTION
UPPER AQUIFER PUMP TEST
C-b TRACT, COLORADO

SCALE: None

TABLE II B-9.2

Transmissivity (T) (g/d/ft) and Storage Coefficients (S) (Shallow Aquifer)

Well No.	24-day Drawdown	5-day Recovery	5-day Drawdown	Final Recovery
AT #1	T = 690 initial T = 1850 secondary T = 804 tertiary No Storage Coefficient Calculation	T = 1850 secondary T = 1130 tertiary No Storage Coefficient Calculation	T = 650 initial T = 1380 secondary T = 1090 tertiary No Storage Coefficient Calculation	T = 241 initial T = 2391 secondary T = 1197 tertiary No Storage Coefficient Calculation
AT #1A-1	T = 1300 S = 5.6x10-4	T = 2260; S = 3.58x10-4 T = 1068; S = 5.91x10-4	T = 1475; S = 4.34x10-4	T = 2513; S = 3.19x10-4 T = 1100; S = 8.37x10-4 T = 1356; S = 4.10x10-4
AT #1B	T = 1186; S = 6.4x10-4	T = 1132; S = 5.44x10-4	T = 1368; S = 3.78x10-4	T = 1718; S = 4.13x10-4 T = 1130; S = 5.84x10-4
AT #1C	T = 1117; S = 3.6x10-4	T = 1313; S = 1.08x10-4	T = 1123; S = 2.70x10-4	T = 1339; S = 1.02x10-4 T = 1100; S = 1.65x10-4 T = 1356; S = 5.98x10-4
AT #1D	T = 1103; S = 4.13x10-4	T = 1161; S = 1.80x10-4	T = 1156; S = 4.03x10-4	T = 1938; S = 1.50x10-4 T = 1146; S = 2.04x10-4 T = 1356; S = 9.28x10-5
SG #6	T = 4300; S = 1.09x10-3 T = 2060; S = 8.16x10-4	T = 7978; S = 1.80x10-3	T = 16,250; S = 4.59x10-3	T = 6060; S = 2.87x10-3 T = 3836; S = 3.03x10-3
SG #10A	T = 8968; S = 4.84x10-4 T = 2400; S = 3.23x10-4 T = 1220; S = 4.39x10-4	T = 6760; S = 4.36x10-4	T = 1880; S = 1.44x10-4	T = 6572; S = 5.4x10-4 T = 2493; S = 7.22x10-4
SG #11	T = 15,500; S = 1.20x10-4 T = 2525; S = 5.64x10-5 T = 1150; S = 5.34x10-5	T = 9037; S = 9.74x10-5 T = 2693; S = 7.20x10-5	T = 3692; S = 8.88x10-5	T = 2950; S = 1.02x10-4 T = 1615; S = 1.43x10-4

AtlanticRichfieldCompany **Internal Correspondence**

Date: January 3, 1975

To: F. R. Scheerer

From: D. B. Tait

Subject: Pump Test Data Results - Tract C-b

Attached are both drawdown and recovery curves obtained through the (1) initial 24-day drawdown period, (2) the initial 5-day recovery period, and (3) ~~the~~ part of the drawdown period of the 5-day pulse test. This data is for the shallow aquifer only. No drawdowns have been noted on any of the other deeper horizons to date.

A tabular summary of the transmissivity (T) and storage coefficients (s) is shown below.

Boundary conditions are present in the pumped well as well as in all of the far out observation wells. In SG-6, 10, and 11, the boundary is a discharging boundary characterized by decreasing transmissivity values with time. The storage coefficient values are all within the same ball park although variable from well to well. All values indicate artesian or confined conditions.

SG-11 has shown a very strong and rapid response, suggesting a strong west - northwest component of directional permeability.

D. B. Tait

DBT/bb

Attachments

CC: A. J. Rogers
A. Barnes
B. Staggs
Pat Boileau

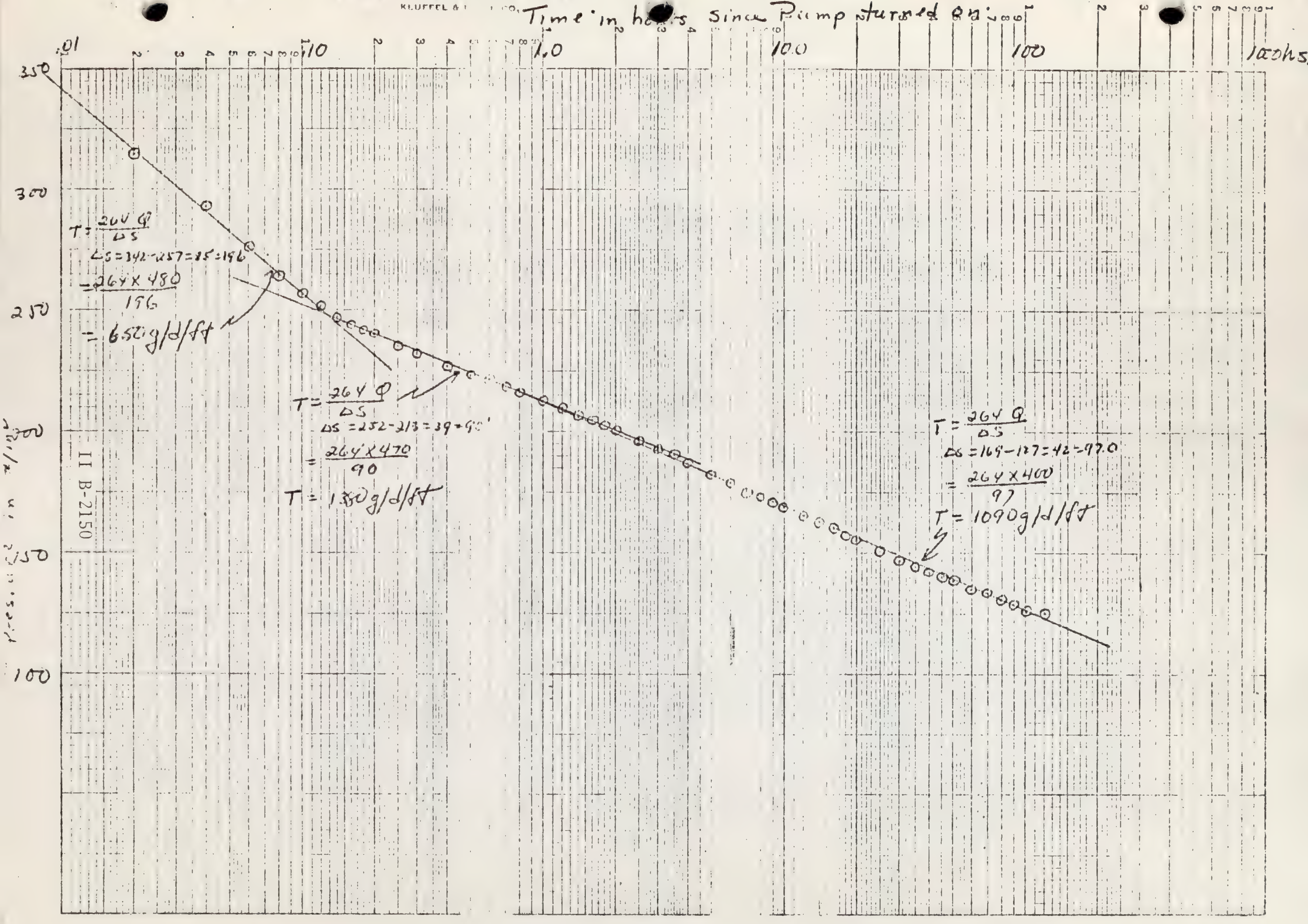
Transmissivity (T) (G/D/Ft.) & Storage Coefficients (s)

	24-Day Drawdown	5-Day Recovery	5-Day Drawdown
AT-1	T = 690 Initial T = 1,850 Secondary T = 804 Tertiary No storage coef. calc.	T = 1,850 Secondary T = 1,130 Tertiary No storage coef. calc.	T = 650 Initial T = 1,380 Secondary T = 1,090 Tertiary No storage coef. calc.
AT-1A-1	T = 1,300 s = 5.6 X 10^{-4}	T = 2,260 T = 1,068 s = 3.58 X 10^{-4} s = 5.91 X 10^{-4}	T = 1,475 s = 4.34 X 10^{-4}
AT-1B	T = 1,186 s = 6.4 X 10^{-4}	T = 1,132 s = 5.44 X 10^{-4}	T = 1,368 s = 3.78 X10^{-4}
AT-1C	T = 1,117 s = 3.6 X 10^{-4}	T = 1,313 s = 1.08 X 10^{-4}	T = 1,123 s = 2.70 X 10^{-4}
AT-1D	T = 1,103 s = 4.13 x 10^{-4}	T = 1,161 s = 1.80 X 10^{-4}	T = 1,156 s = 4.03 x 10^{-4}
SG-6	T = 4,300 T = 2,060 s = 1.09 X 10^{-3} s = 8.16 X 10^{-4}	T = 7,978 s = 1.80 X 10^{-3}	T = 16,250 s = 4.59 X 10^{-3}
SG-10A	T = 8,968 T = 2,400 T = 1,220 s = 4.84 X 10^{-4} s = 3.23 X 10^{-4} s = 4.39 X 10^{-4}	T = 6,760 s = 4.36 X 10^{-4}	T = 1,880 s = 1.44 X 10^{-4}
SG-11	T = 15,500 T = 2,525 T = 1,150 s = 1.20 X 10^{-4} s = 5.64 X 10^{-5} s = 5.34 X 10^{-5}	T = 9,037 T = 2,693 s = 9.74 X 10^{-5} s = 7.20 X 10^{-5}	T = 3,692 s = 8.88 X 10^{-5}

D. B. Tait
1/3/75

K&E SEMI-LOGARITHMIC 46 6213
5 CYCLES X 70 DIVISIONS MADE IN U.S.A.
KEUFFEL & ESSER CO.

Pulse test



$T = \frac{264\,Q}{\Delta s}$

$\Delta s = 342-257 = 85 = 156$

$= \frac{264 \times 480}{156}$

$= 652\,g/d/ft$

$T = \frac{264\,Q}{\Delta s}$

$\Delta s = 252-213 = 39 = 90'$

$= \frac{264 \times 470}{90}$

$T = 1380\,g/d/ft$

$T = \frac{264\,Q}{\Delta s}$

$\Delta s = 169-127 = 42 = 97.0$

$= \frac{264 \times 400}{97}$

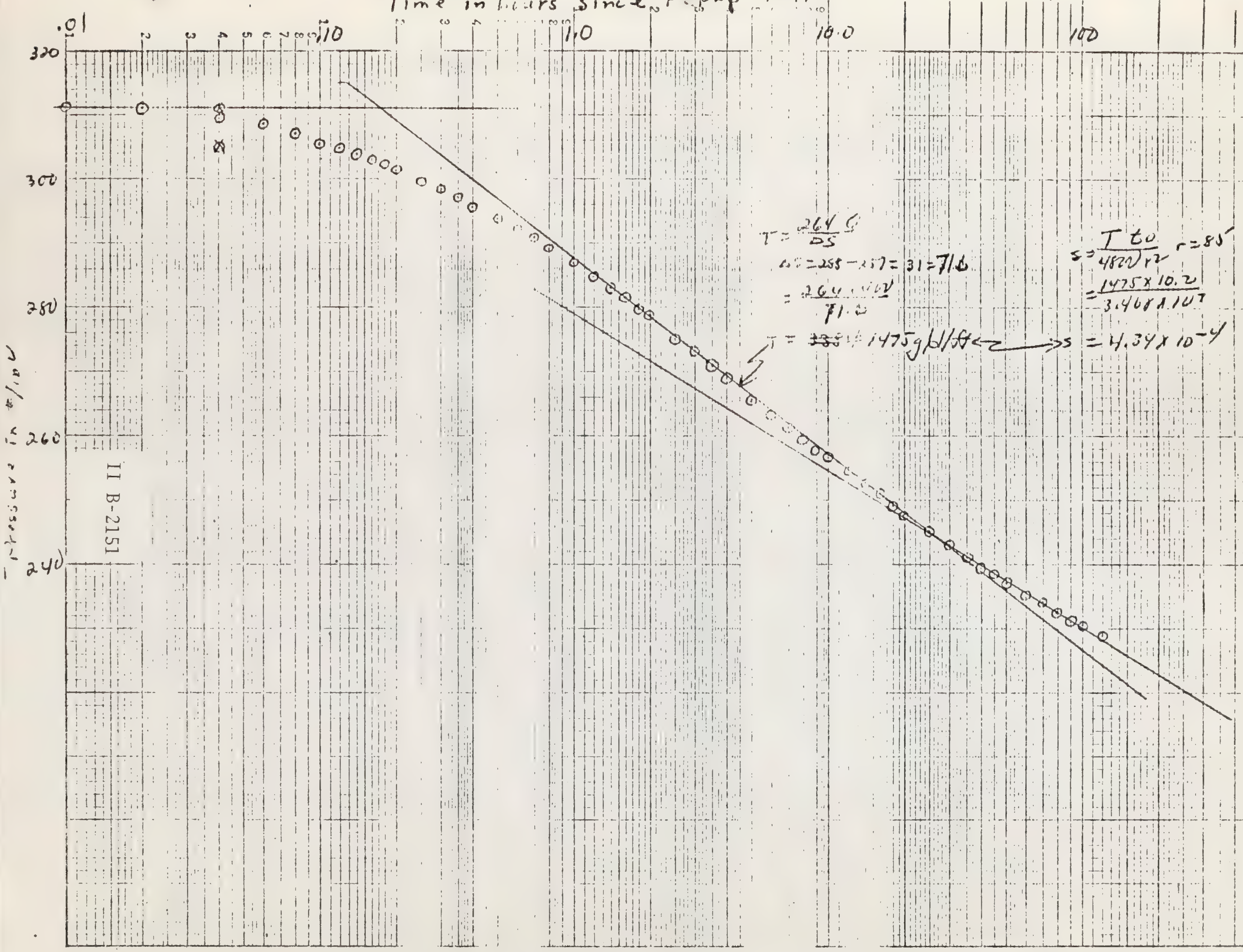
$T = 1090\,g/d/ft$

II B-2150

Shallow Aquifer AT-1- Pumped well. Drawdown. 12-28-74—

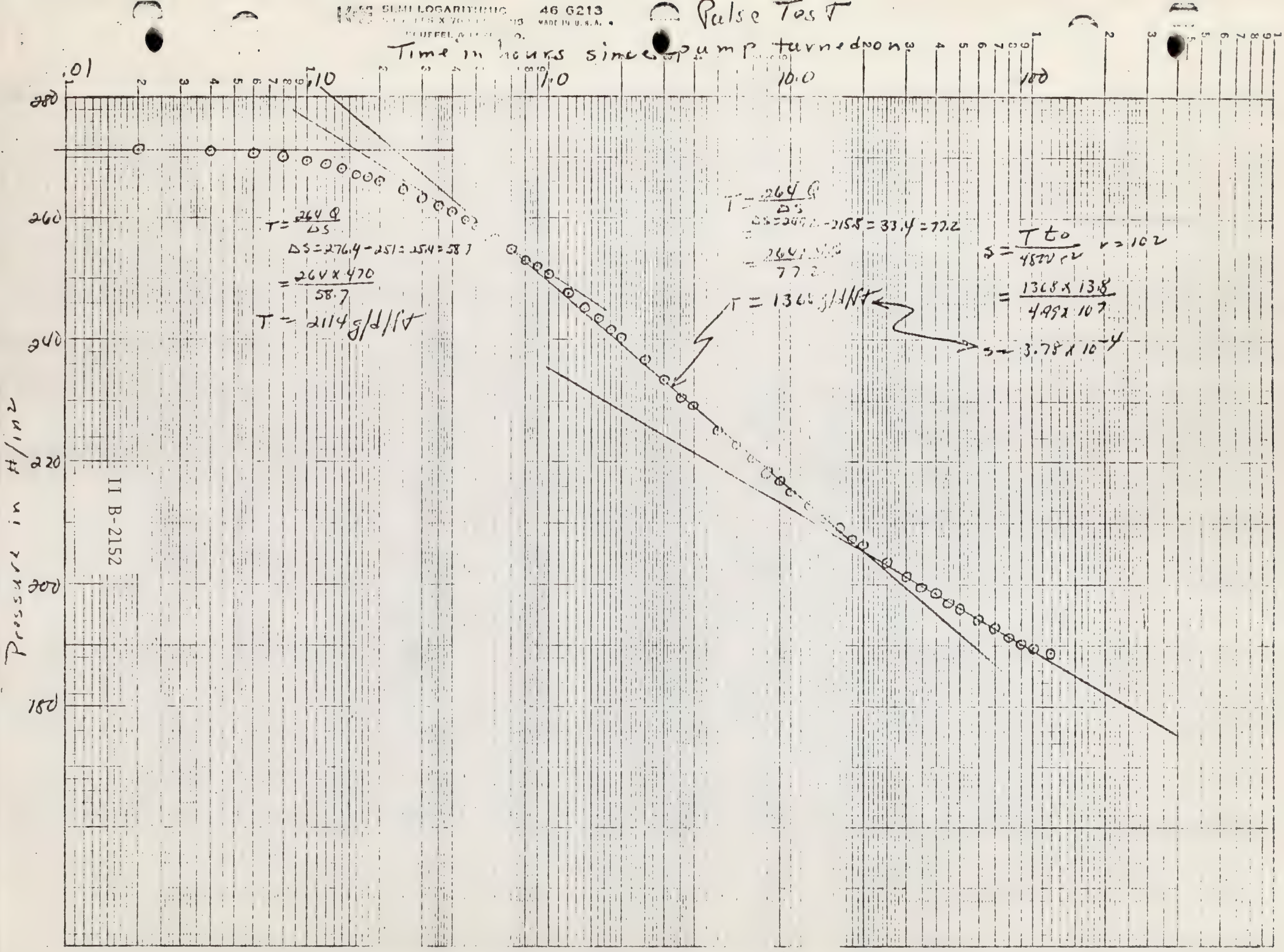
K+E SEMI-LOGARITHMIC 46 6213
3 CYCLES X 70 DIVISIONS MADE IN U.S.A.
KEUFFEL & ESSER CO.

False Test



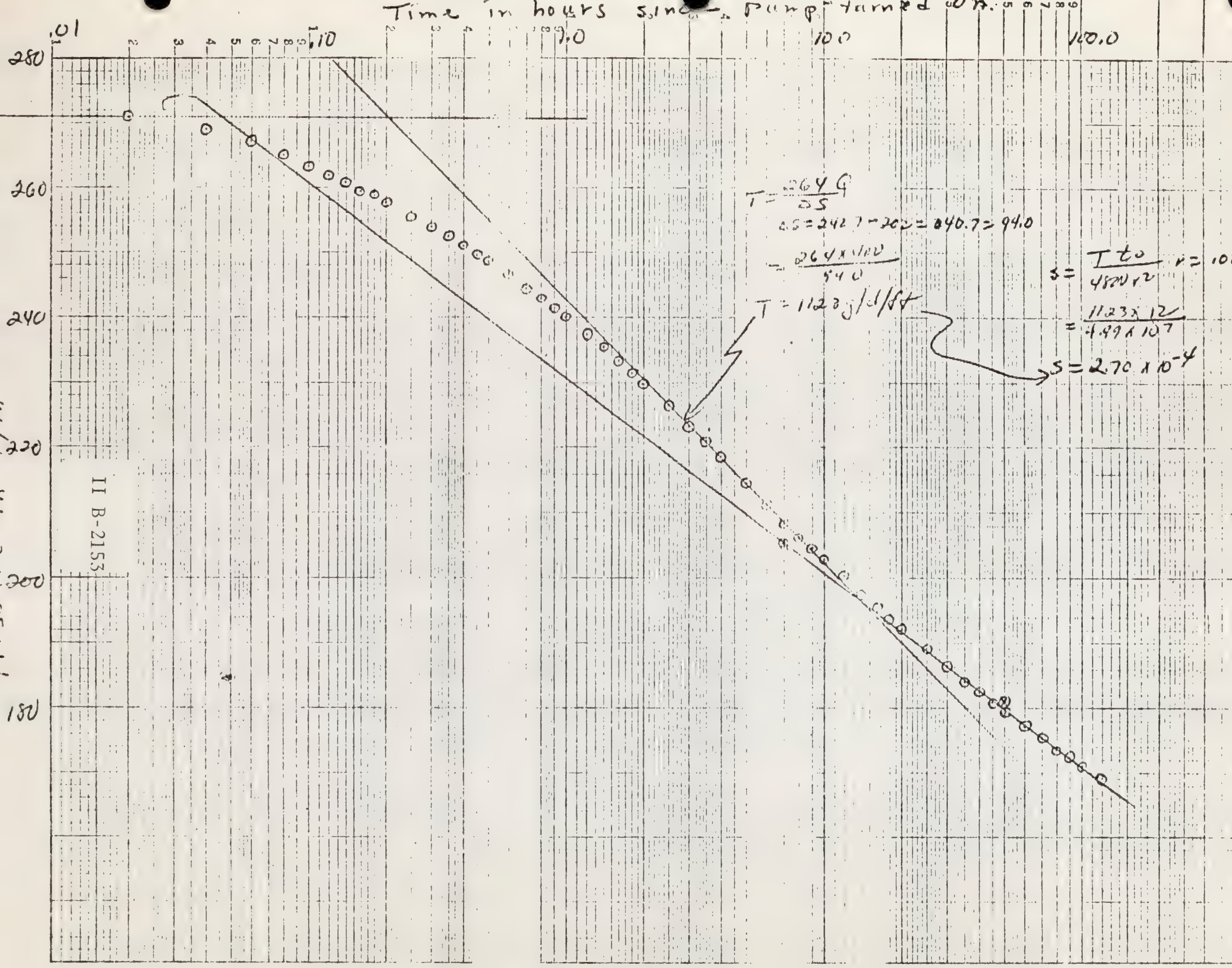
AT #1A - Drawdown Test 12-28-74 →
Shallow Aquifer

II B-2151



Shallow Aquifer AT-1B Drawdown Test 12-28-74 →

Pulse Test



$T = \frac{264\,Q}{\Delta s}$

$\Delta s = 242.7 - 200 = 240.7 = 94.0$

$= \frac{264 \times 400}{94.0}$

$T = 1123$ g/d/ft

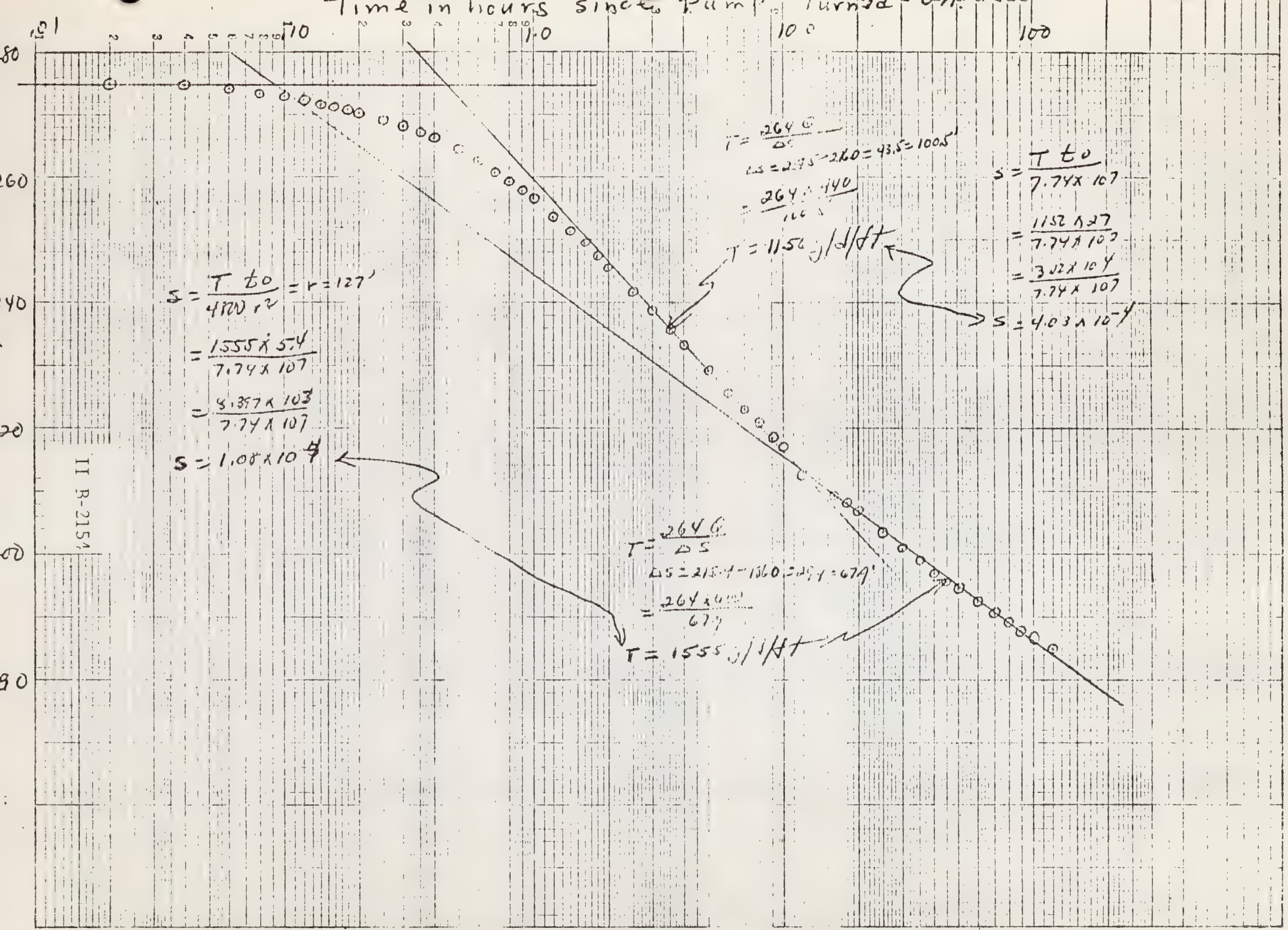
$S = \frac{T t_0}{4800\, r^2}$ $r = 102$

$= \frac{1123 \times 12}{4.99 \times 10^7}$

$S = 2.70 \times 10^{-4}$

Shallow Aquifer AT-1C Drawdown Test 12-28-74 →

Pulse Test



T = 264 Q / ΔS

ΔS = 293.5 − 260 = 43.5 = 100.5'

= 264 × 440 / 100.5

T = 1152 g/d/ft

S = T t0 / 7.74 × 10^7

= 1152 × .27 / 7.74 × 10^7

= 3.12 × 10^4 / 7.74 × 10^7

S = 4.03 × 10^-4

S = T t0 / 4800 r², r = 127'

= 1555 × 5.4 / 7.74 × 10^7

= 8.397 × 10^3 / 7.74 × 10^7

S = 1.08 × 10^-4

T = 264 Q / ΔS

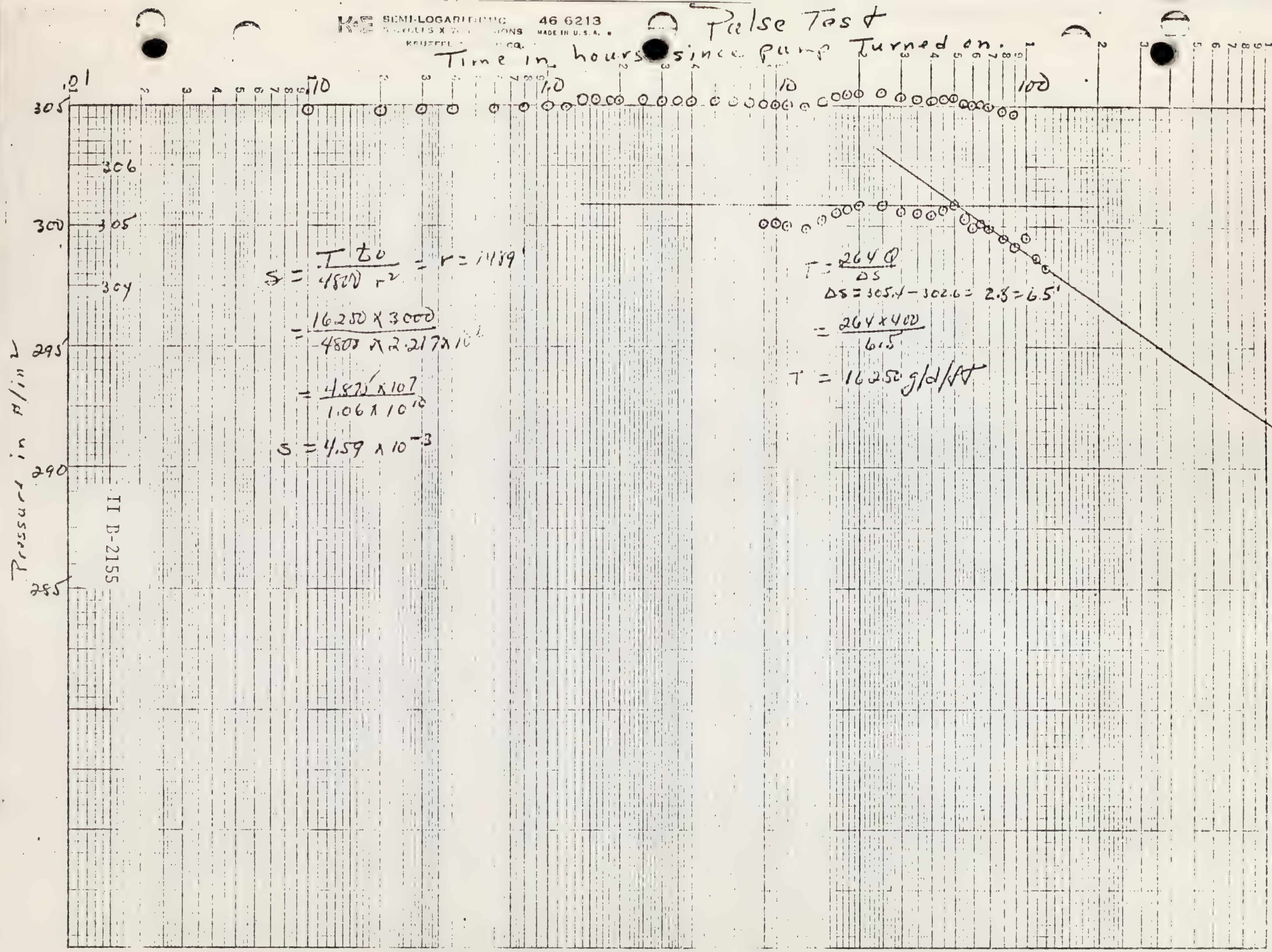
ΔS = 215.4 − 186.0 = 29.4 = 67.9'

= 264 × 400 / 67.9

T = 1555 g/d/ft

II B-2154

shallow Aquifer AT-1D Drawdown Test 12-28-74 →



$S = \frac{T\ t_0}{4800\ r^2}$; $r = 1489'$

$= \frac{16250 \times 3000}{4800 \times 2.217 \times 10^6}$

$= \frac{4.875 \times 10^7}{1.06 \times 10^{10}}$

$S = 4.59 \times 10^{-3}$

$T = \frac{264\ Q}{\Delta s}$

$\Delta s = 305.4 - 302.6 = 2.8 = 6.5'$

$= \frac{264 \times 400}{6.5}$

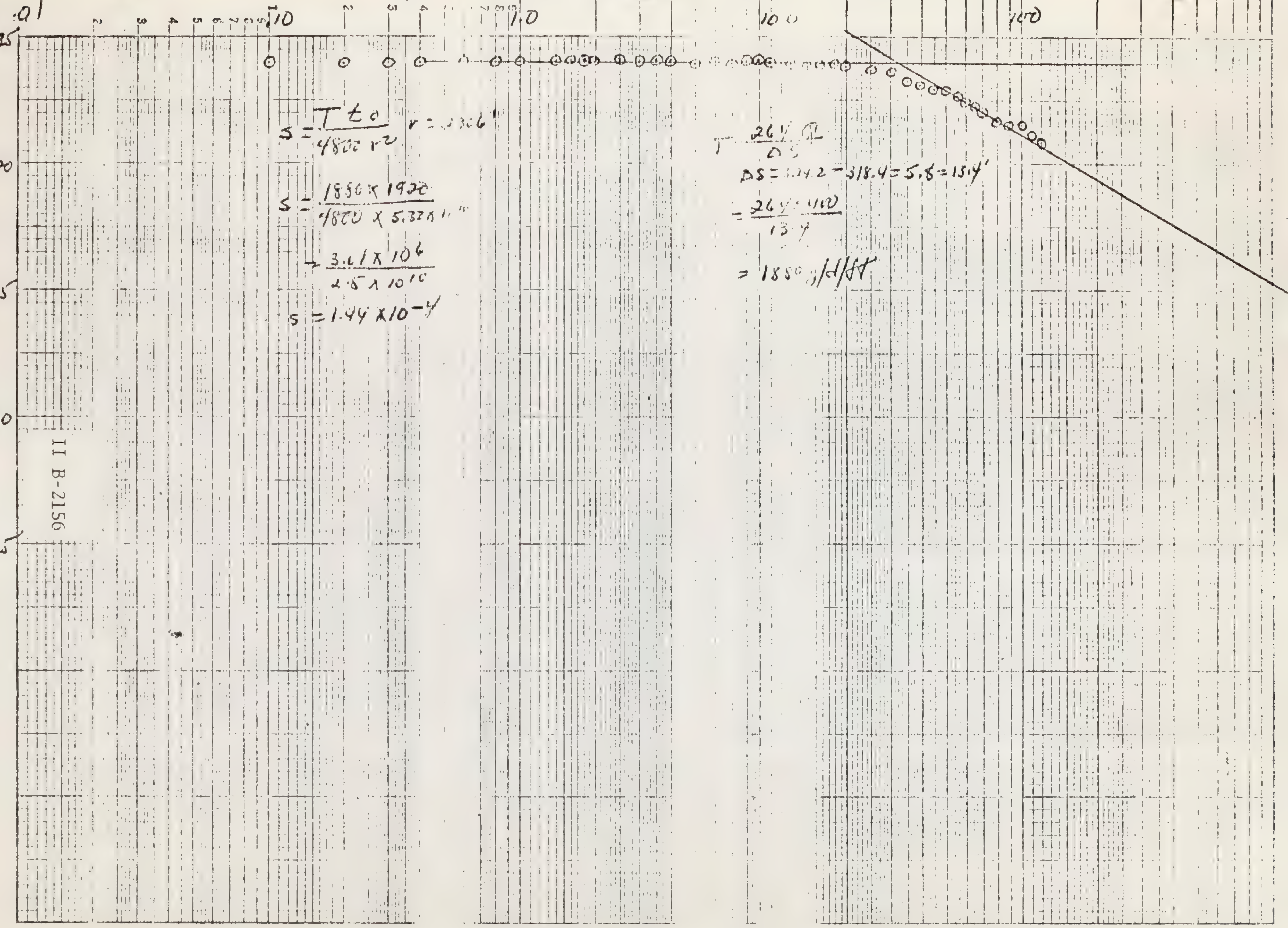
$T = 16250$ g/d/ft

II B-2155

56-6 Drawdown Test 12-28-74 ⟶
Shallow Aquifer

SEMI-LOGARITHMIC 46 6213
KEUFFEL & E... CO.

Pulse Test



$S = \frac{T t_0}{4800 r^2}$ r = .306'

$S = \frac{1850 \times 1920}{4800 \times 5.32 \times 1..}$

$= \frac{3.61 \times 10^6}{2.5 \times 10^{10}}$

$S = 1.44 \times 10^{-4}$

$T = \frac{264 Q}{\Delta S}$

$\Delta S = 324.2 - 318.4 = 5.8 = 13.4'$

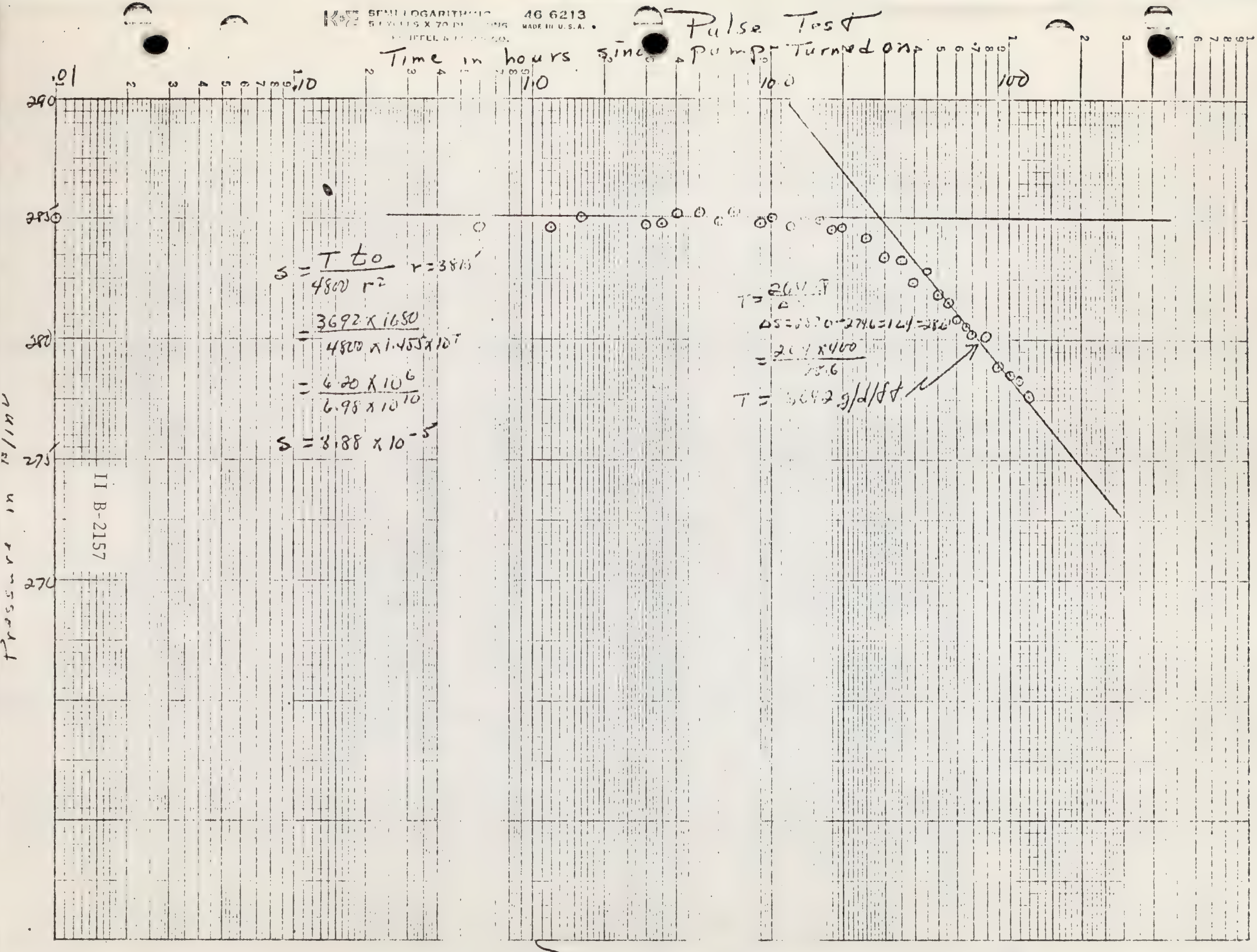
$= \frac{264 \cdot 110}{13.4}$

= 1850 g/d/ft

II B-2156

G-10A- Drawdown Test 12-28-74 →
Shallow Aquifer

Pulse Test



$S = \frac{T\, t_0}{4800\, r^2}$ r = 381'

$= \frac{3692 \times 1650}{4800 \times 1.455 \times 10^7}$

$= \frac{6.20 \times 10^6}{6.98 \times 10^{10}}$

$S = 3.88 \times 10^{-5}$

$T = \frac{264\, Q}{\Delta s}$

Δs = [illegible] − 274.6 = 1 cy = 28.6'

$= \frac{264 \times 400}{28.6}$

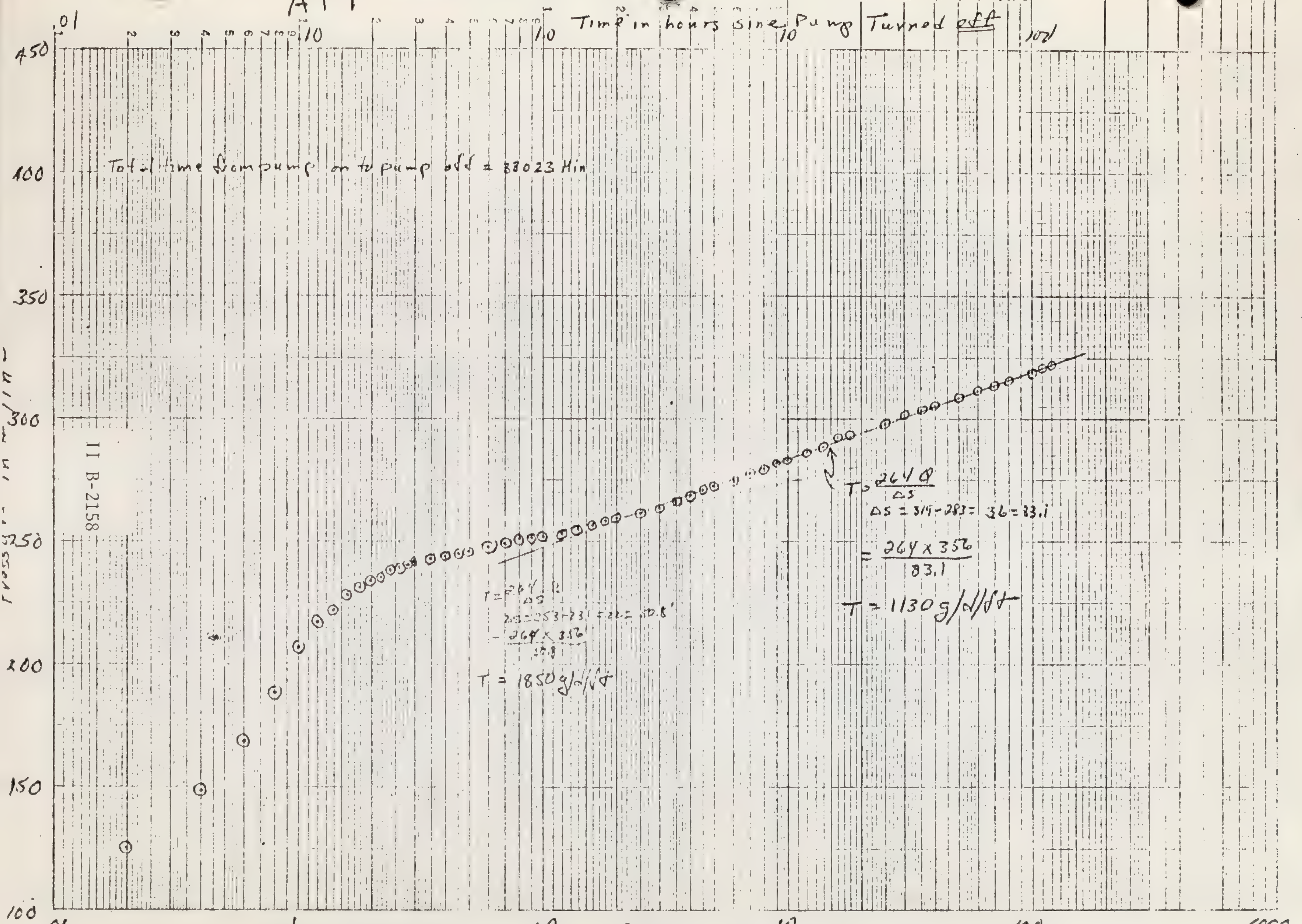
T = 3692 g/d/ft

SG-11- Drawdown Test 12-28-74 →
Shallow Aquifer

SEMI-LOGARITHMIC 46 6213
5 CYCLES X 70 DIVISIONS MADE IN U.S.A.
KEUFFEL & ESSER CO.

AT I

Recovery 12-23-74



$T = \frac{264\,Q}{\Delta s}$
$\Delta s = 253 - 231 = 22.2 = 10.8'$
$= \frac{264 \times 356}{35.8}$
$T = 1850\ g/d/ft$

$T = \frac{264\,Q}{\Delta s}$
$\Delta s = 319 - 283 = 36 = 83.1$
$= \frac{264 \times 356}{83.1}$
$T = 1130\ g/d/ft$

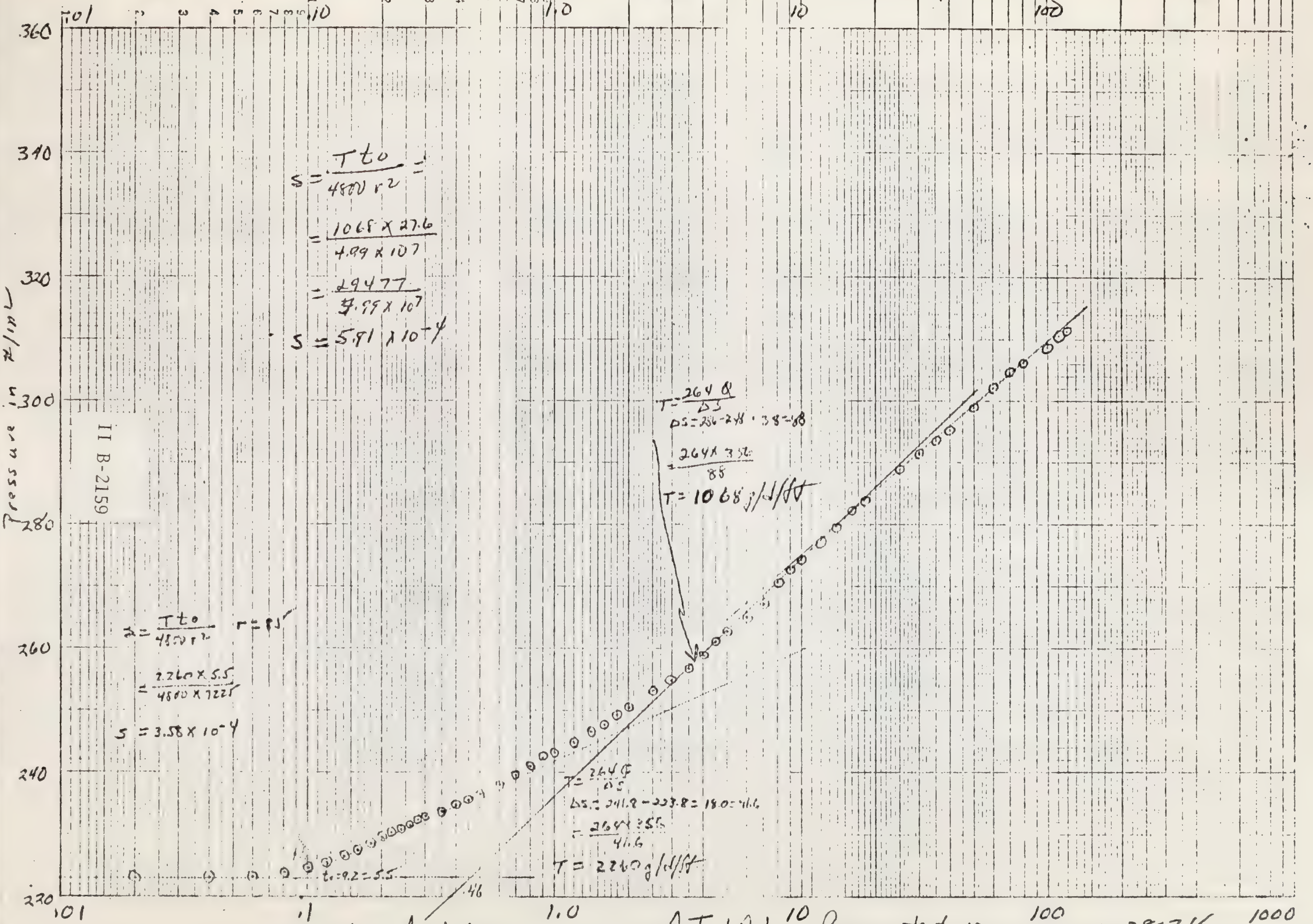
II B-2158

Shallow Aquifer AT-1 Recovery 12-23 – 12-28-74

SEMI-LOGARITHMIC 46 6213
5 CYCLES X 70 DIVISIONS MADE IN U.S.A.
KEUFFEL & ESSER CO.

Recovery 12-23-74

AT 1A Time in hours since Pump turned off



II B-2159

$S = \frac{T t_0}{4800 r^2} =$

$= \frac{1068 \times 27.6}{4.99 \times 10^7}$

$= \frac{29477}{4.99 \times 10^7}$

$S = 5.91 \times 10^{-4}$

$T = \frac{264 Q}{\Delta S}$

$\Delta S = 286 - 248 \cdot 38 = 88$

$= \frac{264 \times 356}{88}$

$T = 1068$ g/d/ft

$S = \frac{T t_0}{4800 r^2}$ r = 85'

$= \frac{2260 \times 5.5}{4800 \times 7225}$

$S = 3.58 \times 10^{-4}$

$T = \frac{264 Q}{\Delta S}$

$\Delta S = 241.8 - 223.8 = 18.0 = 41.6$

$= \frac{264 \times 356}{41.6}$

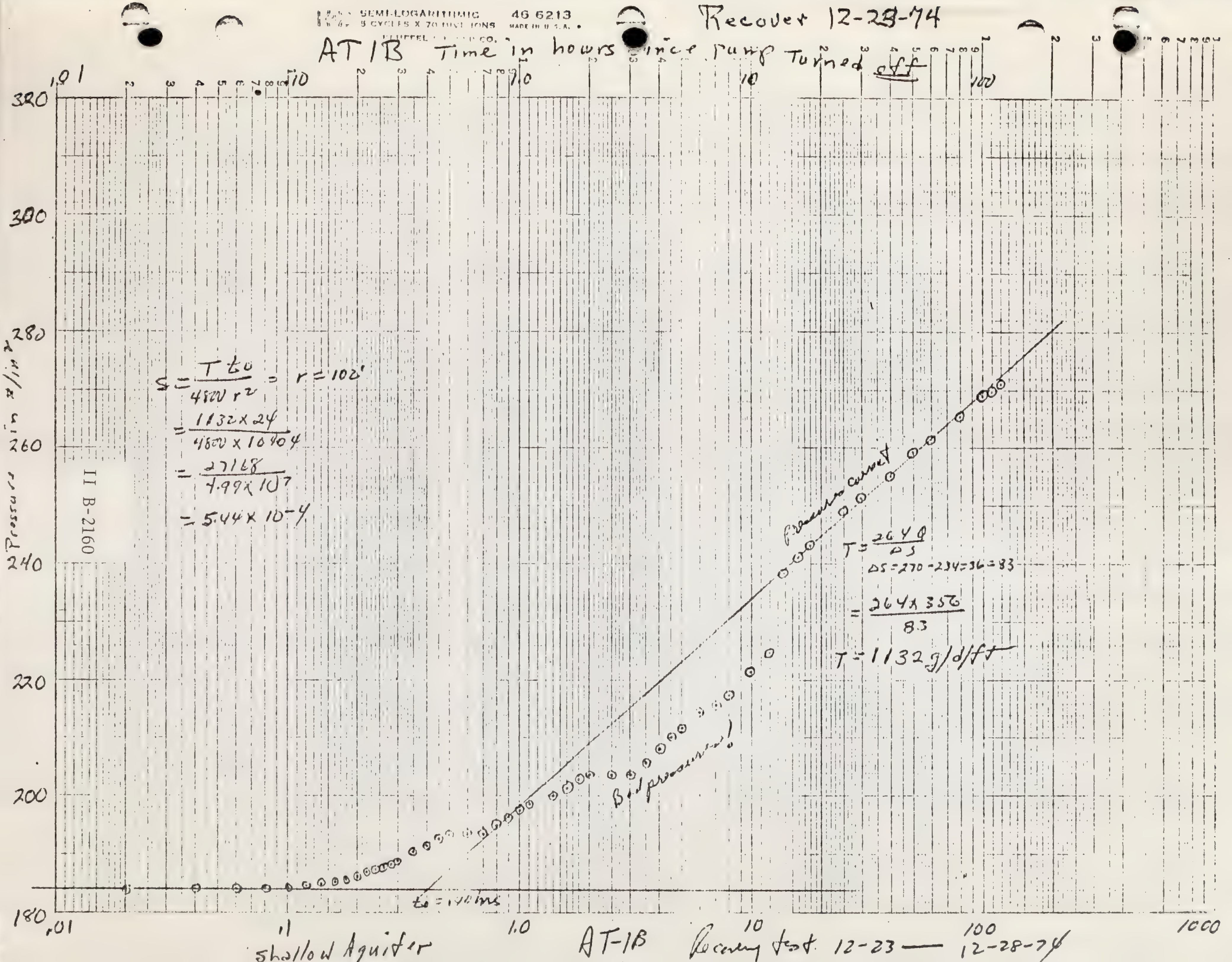
$T = 2260$ g/d/ft

Shallow Aquifer

AT-1A-1 Recovery test 12-23 — 12-28-74

Recover 12-28-74

AT 1B Time in hours since pump Turned off



$S = \frac{T t_0}{4800 r^2}$ = r = 102'

$= \frac{1132 \times 24}{4800 \times 10404}$

$= \frac{27168}{4.99 \times 10^7}$

$= 5.44 \times 10^{-4}$

$T = \frac{264 Q}{\Delta s}$

$\Delta s = 270 - 234 = 36 = 83$

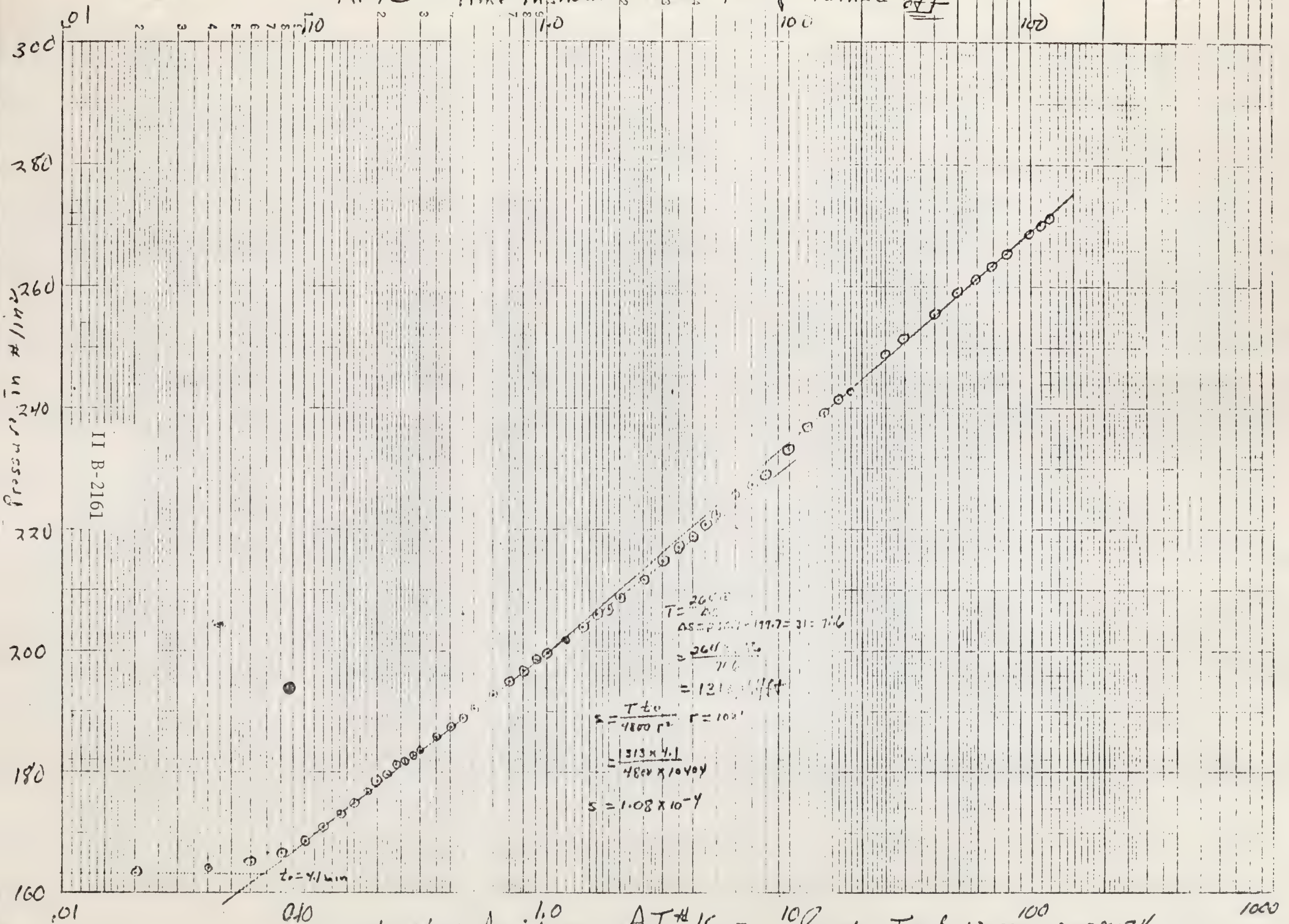
$= \frac{264 \times 356}{83}$

T = 1132 g/d/ft

II B-2160

Shallow Aquifer AT-1B Recovery test 12-23 — 12-28-74

Recovery 12-23-74



$T = \frac{264Q}{\Delta s}$

$\Delta s = [illegible] - 199.7 = 31 : 7.6$

$= \frac{264 \times [illegible]}{7.6}$

$= 121[illegible]/ft$

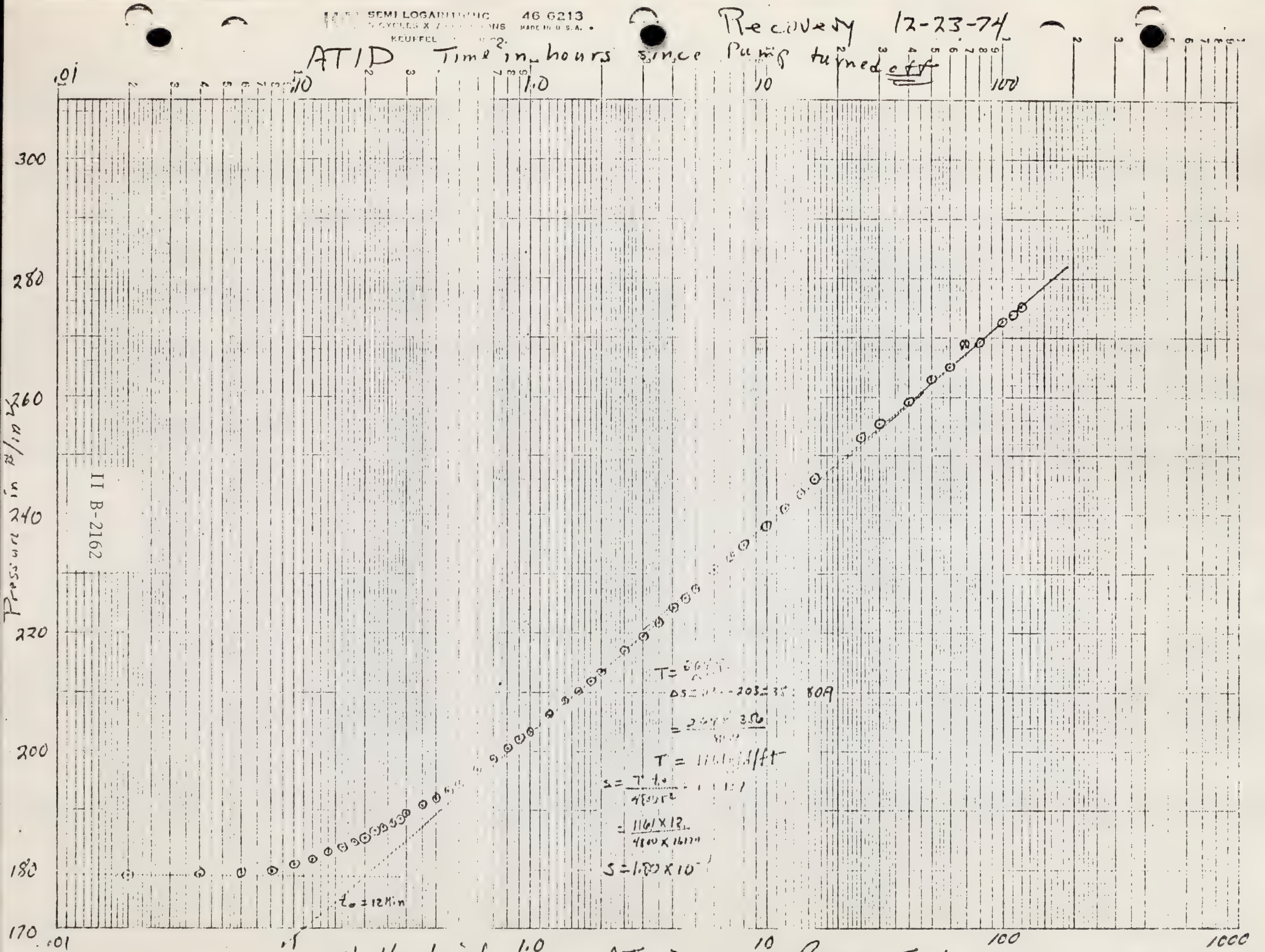
$s = \frac{T t_o}{4800 r^2}$ $r = 102'$

$= \frac{1313 \times 4.1}{4800 \times 10404}$

$s = 1.08 \times 10^{-4}$

II B-2161

Shallow Aquifer AT#1C - Recovery Test 12-23- 12-28-74



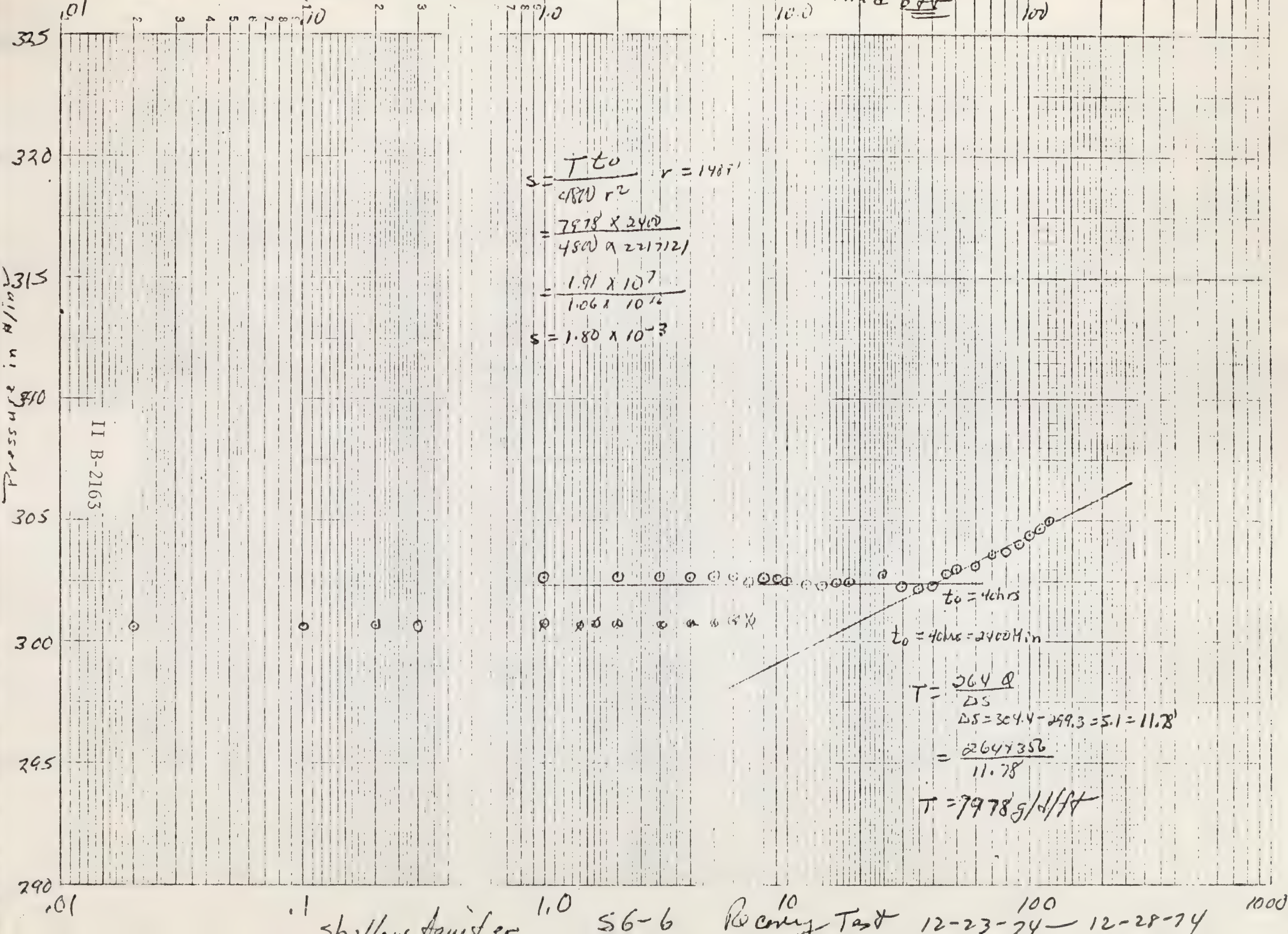
II B-2162

Shallow Aquifer AT-1D Recovery Test 12-23 — 12-28-74

46 0213 SEMI-LOGARITHMIC 5 CYCLES X ... DIVISIONS MADE IN U.S.A. KEUFFEL & ESSER CO.

Recovery 12-23-74

SG-6 Time in hours since pump Turned off



II B-2163

$s = \frac{T t_0}{4800\ r^2}$ r = 1487'

$= \frac{7978 \times 2400}{4800 \times 2211121}$

$= \frac{1.91 \times 10^7}{1.061 \times 10^{10}}$

$s = 1.80 \times 10^{-3}$

t_0 = 40hrs = 2400 Min

$T = \frac{264\ Q}{\Delta S}$

ΔS = 304.4 − 299.3 = 5.1 = 11.78'

$= \frac{264 \times 356}{11.78}$

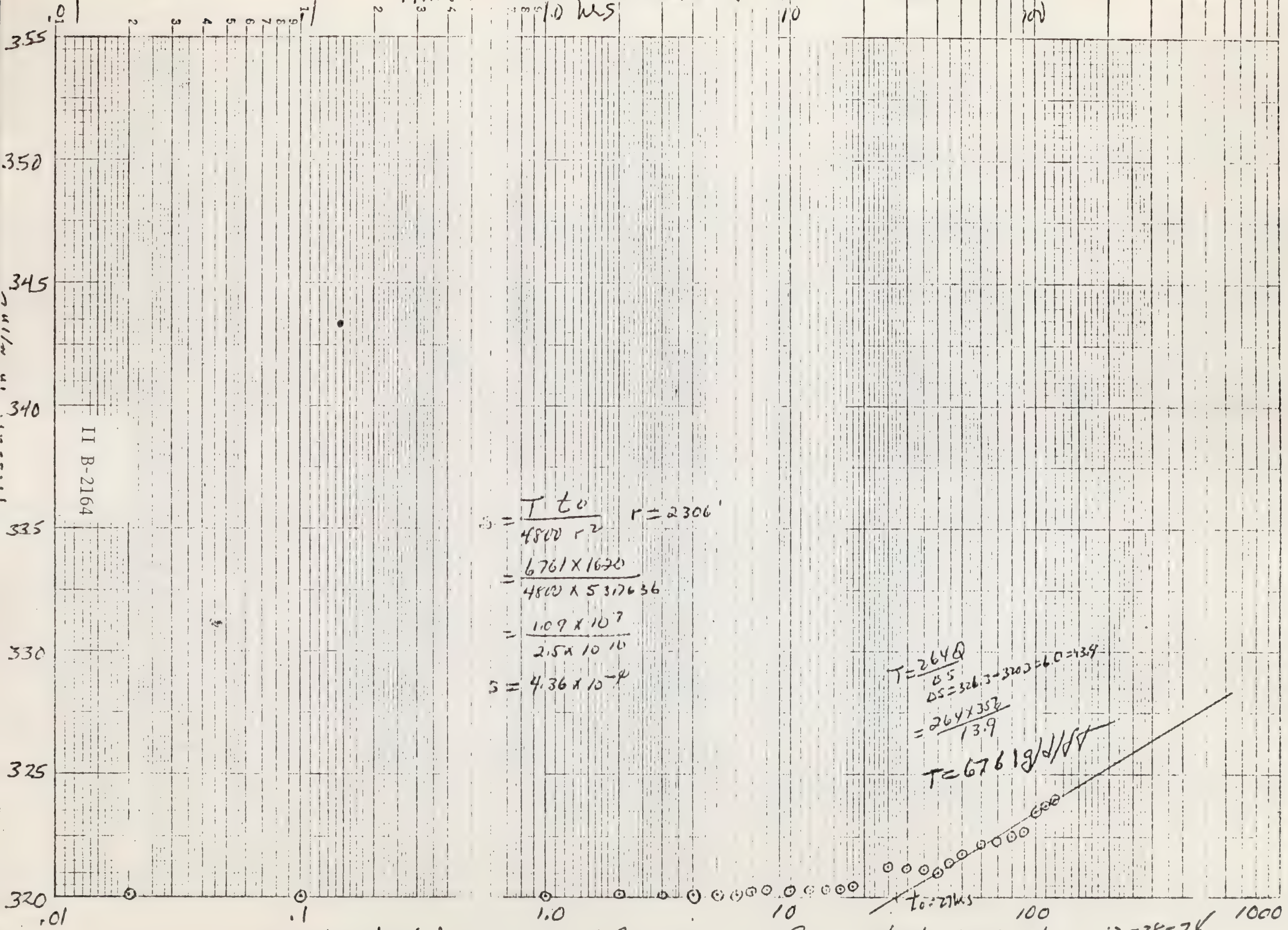
T = 7978 g/d/ft

shallow Aquifer SG-6 Recovery Test 12-23-74 — 12-28-74

SEMI-LOGARITHMIC 46 6213
3 CYCLES X 70 DIVISIONS MADE IN U.S.A.
KEUFFEL & ESSER CO.

Recovery 12-23-74

SG10 Time in hours since pump turned off



$$S = \frac{T\,t_o}{4800\,r^2} \quad r = 2306'$$

$$= \frac{6761 \times 1620}{4800 \times 5317636}$$

$$= \frac{1.09 \times 10^7}{2.5 \times 10^{10}}$$

$$S = 4.36 \times 10^{-4}$$

$$T = \frac{264Q}{\Delta S}$$

$\Delta S = 326.3 - 320.3 = 6.0 = 13.9$

$$= \frac{264 \times 352}{13.9}$$

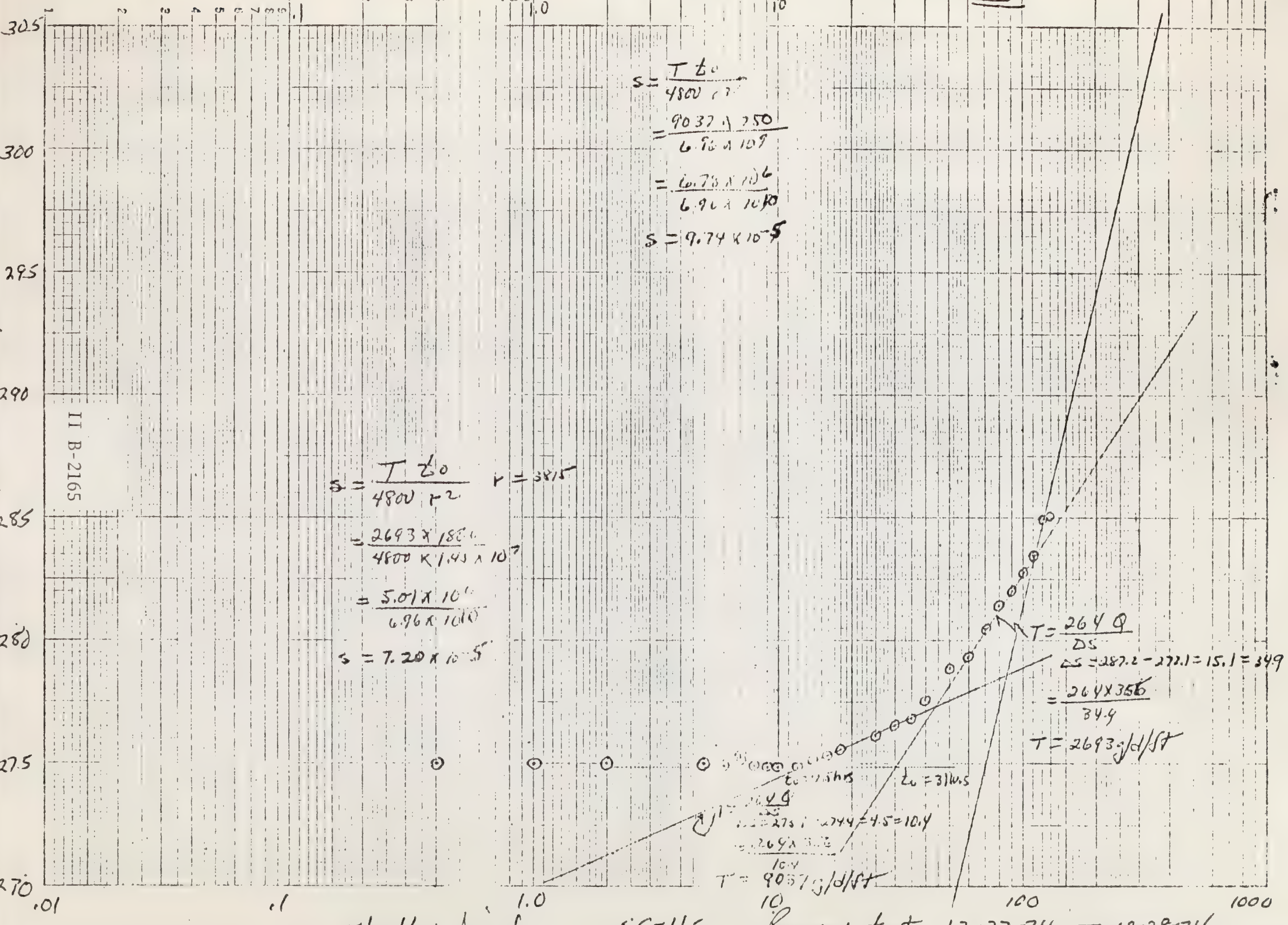
T = 6761 g/d/ft

Shallow Aquifer SG-10A- . Recovery test 12-23-74 — 12-28-74

K&E SEMI-LOGARITHMIC 46 6213
5 CYCLES X 70 DIVISIONS MADE IN U.S.A.
KEUFFEL & ESSER CO.

Recovery 12-23-74 –

SG 11 Time in hours since pump turned off



$s = \frac{T t_0}{4800 r^2}$

$= \frac{9037 \times 750}{6.96 \times 10^{10}}$

$= \frac{6.78 \times 10^6}{6.96 \times 10^{10}}$

$s = 9.74 \times 10^{-5}$

$s = \frac{T t_0}{4800 r^2}$ $r = 3815$

$= \frac{2693 \times 1800}{4800 \times 1.45 \times 10^7}$

$= \frac{5.01 \times 10^6}{6.96 \times 10^{10}}$

$s = 7.20 \times 10^{-5}$

$T = \frac{264 Q}{DS}$

$\Delta s = 287.2 - 272.1 = 15.1 = 34.9$

$= \frac{264 \times 356}{34.9}$

T = 2693 g/d/ft

$T = \frac{264 Q}{\Delta s}$

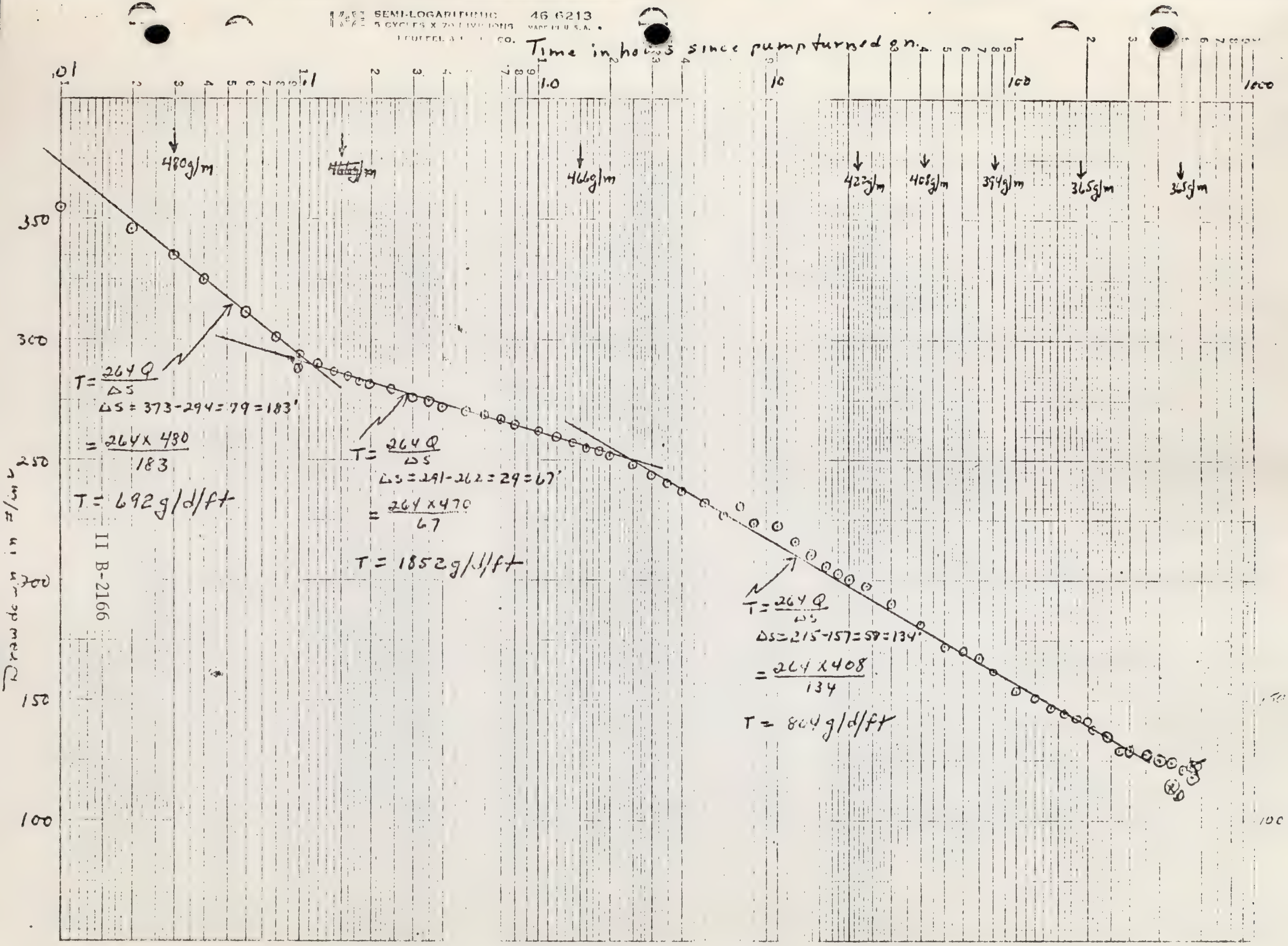
$\Delta s = 27[illegible] - 274.4 = 4.5 = 10.4$

$= \frac{264 \times 356}{10.4}$

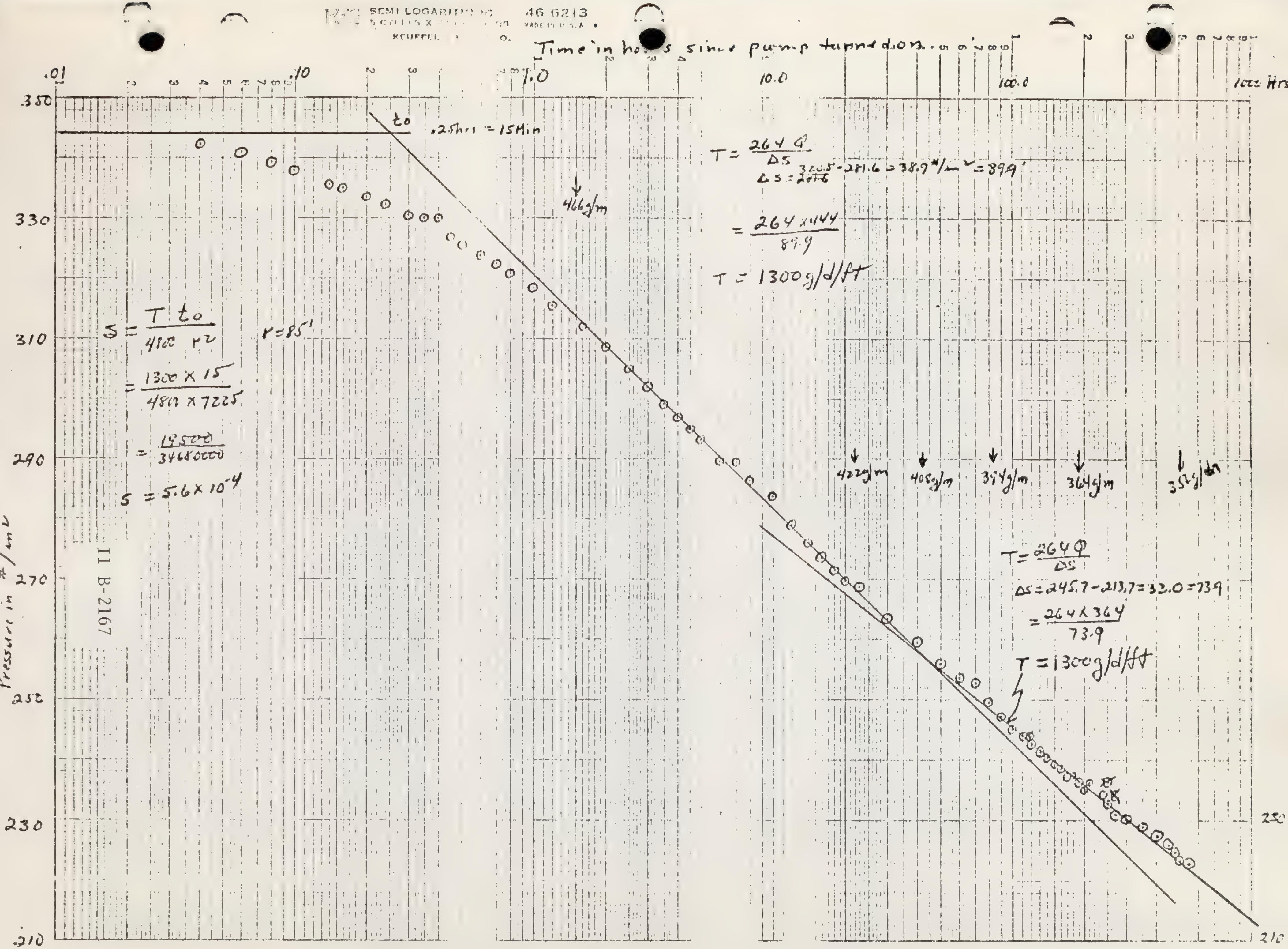
T = 9037 g/d/ft

II B-2165

Shallow Aquifer SG-11 Recovery test 12-23-74 — 12-28-74

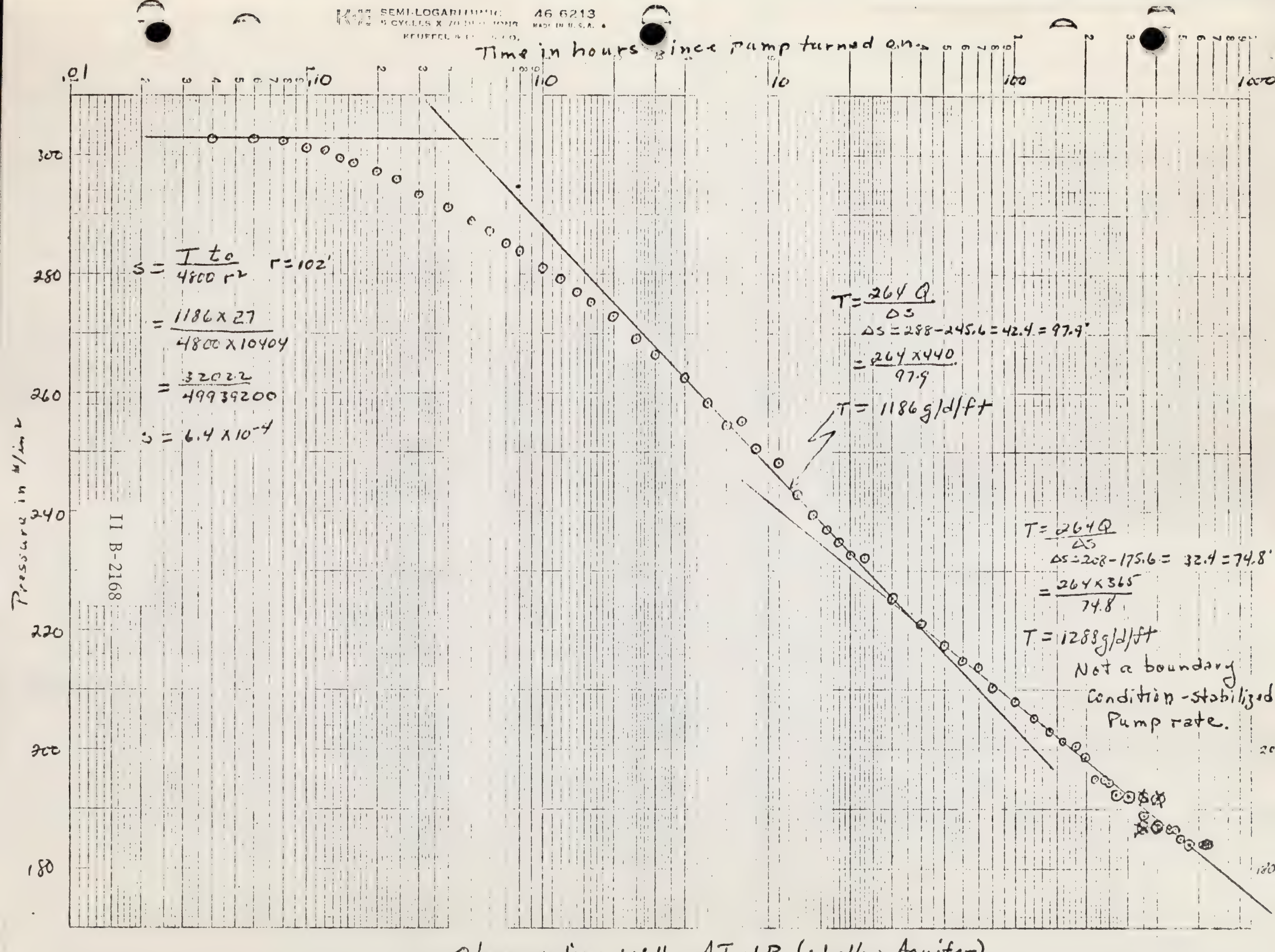


AT#1 Pumped well. 11-30-74 - 12-23-74



II B-2167

Observation well - AT# 1A-1. (shallow Aquifer)



$S = \frac{T\ t_0}{4800\ r^2}$ $r = 102'$

$= \frac{1186 \times 27}{4800 \times 10404}$

$= \frac{32022}{49939200}$

$S = 6.4 \times 10^{-4}$

$T = \frac{264\ Q}{\Delta s}$

$\Delta s = 288 - 245.6 = 42.4 = 97.9'$

$= \frac{264 \times 440}{97.9}$

$T = 1186\ g/d/ft$

$T = \frac{264\ Q}{\Delta s}$

$\Delta s = 208 - 175.6 = 32.4 = 74.8'$

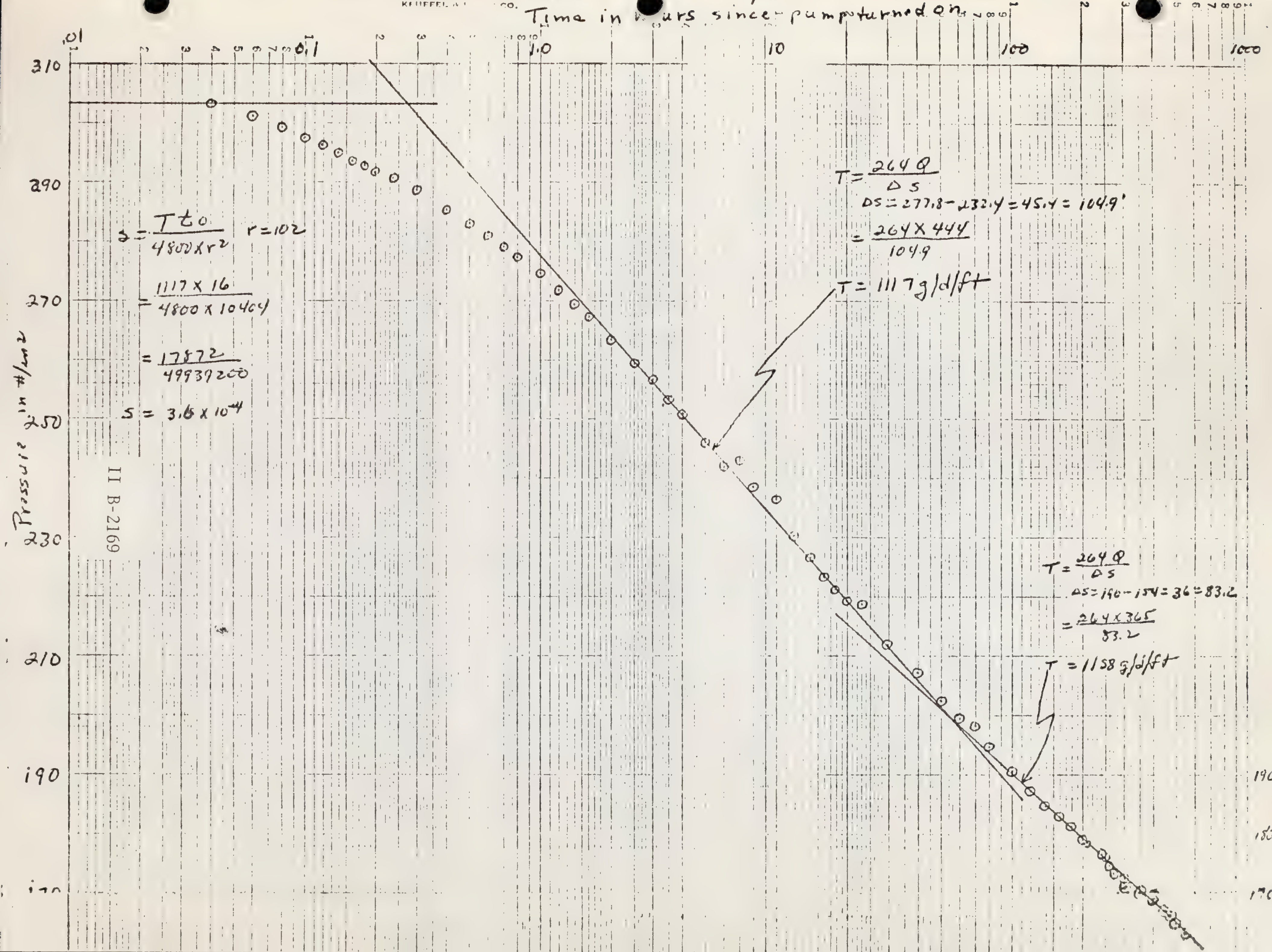
$= \frac{264 \times 365}{74.8}$

$T = 1288\ g/d/ft$

Not a boundary condition - stabilized pump rate.

Observation well AT-1B (shallow Aquifer)

A1- 1C



$T = \frac{264\,Q}{\Delta s}$

$\Delta s = 277.8 - 232.4 = 45.4 = 104.9'$

$= \frac{264 \times 444}{104.9}$

T = 1117 g/d/ft

$s = \frac{T t_0}{4800 \times r^2}$ $r = 102$

$= \frac{1117 \times 16}{4800 \times 10404}$

$= \frac{17872}{49939200}$

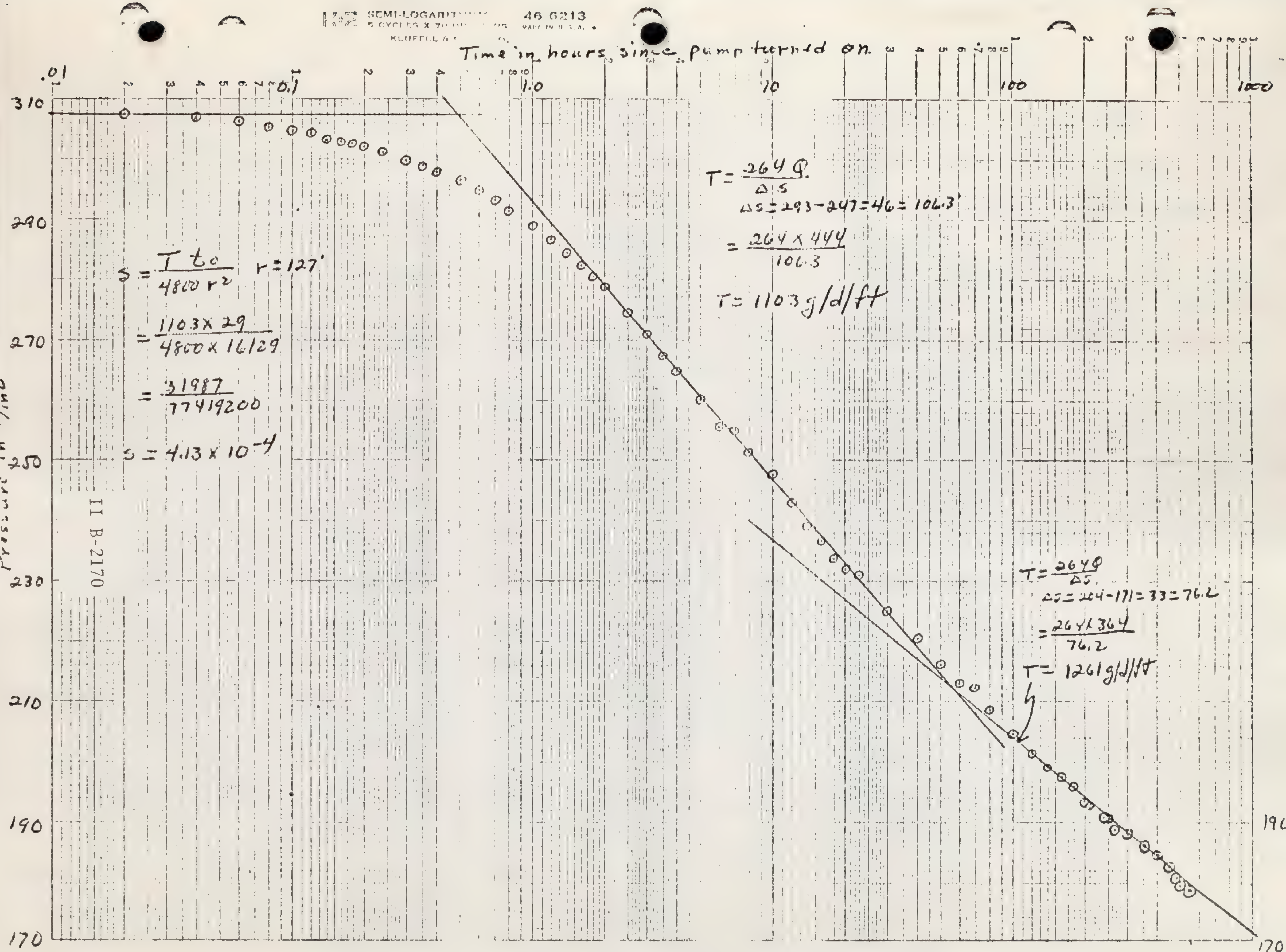
$s = 3.6 \times 10^{-4}$

$T = \frac{264\,Q}{\Delta s}$

$\Delta s = 190 - 154 = 36 = 83.2$

$= \frac{264 \times 365}{83.2}$

T = 1158 g/d/ft



$T = \frac{264\,Q}{\Delta s}$

$\Delta s = 293 - 247 = 46 = 106.3'$

$= \frac{264 \times 444}{106.3}$

$T = 1103$ g/d/ft

$S = \frac{T\,t_0}{4800\,r^2}$ $r = 127'$

$= \frac{1103 \times 29}{4800 \times 16129}$

$= \frac{31987}{77419200}$

$S = 4.13 \times 10^{-4}$

$T = \frac{264\,Q}{\Delta s}$

$\Delta s = 264 - 171 = 33 = 76.2$

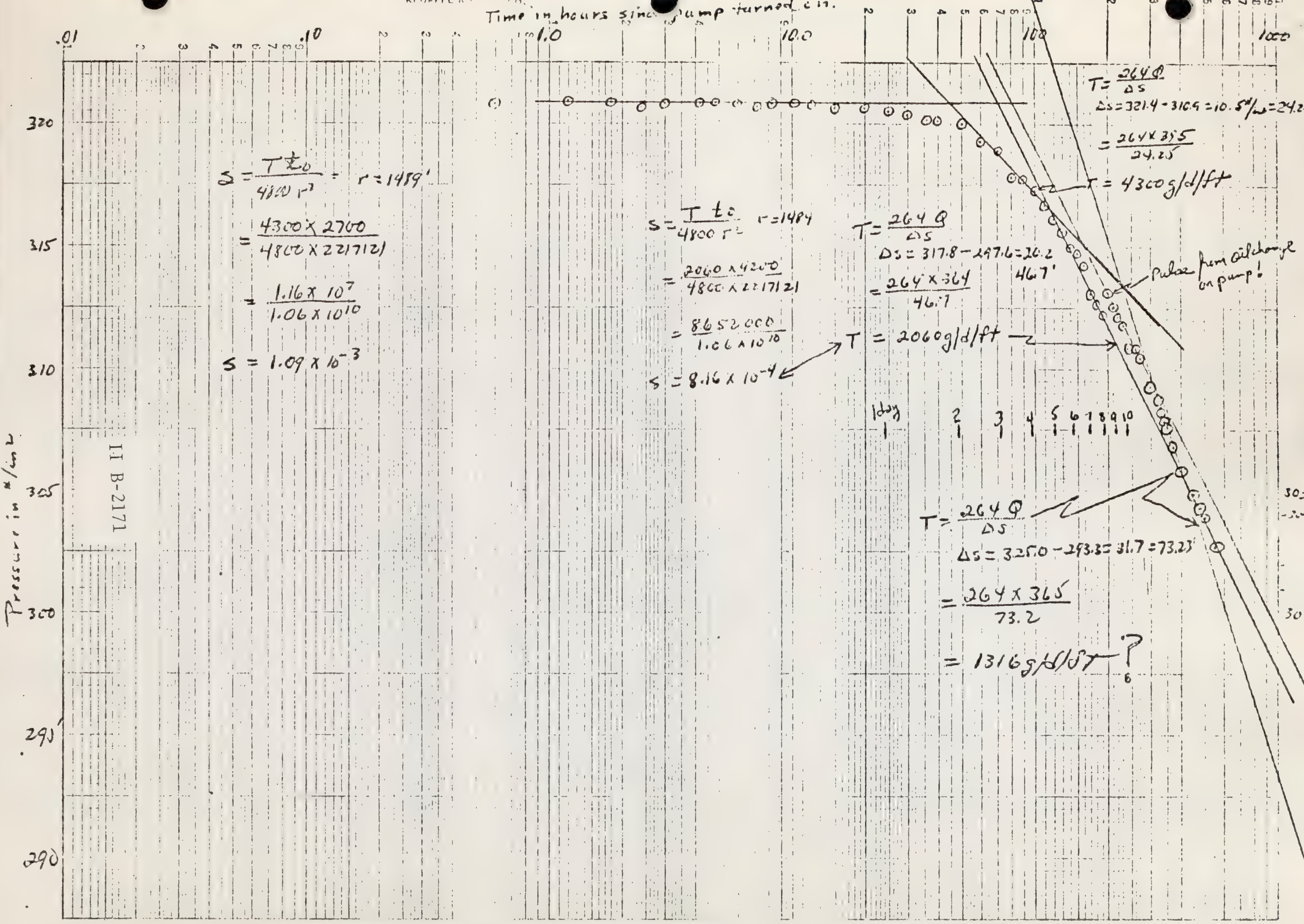
$= \frac{264 \times 364}{76.2}$

$T = 1261$ g/d/ft

II B-2170

Observation well AT-1D (shallow Aquifer)

K&E SEMI-LOGARIT... 46 6213
5 CYCLES X 70 ... MADE IN U.S.A.
KEUFFEL & ... CO.



$S = \frac{T\,t_0}{4800\,r^2}$; $r = 1489'$

$= \frac{4300 \times 2700}{4800 \times 2217121}$

$= \frac{1.16 \times 10^7}{1.06 \times 10^{10}}$

$S = 1.09 \times 10^{-3}$

$S = \frac{T\,t_0}{4800\,r^2}$ $r = 1489$

$= \frac{2060 \times 4200}{4800 \times 2217121}$

$= \frac{8652000}{1.06 \times 10^{10}}$

$S = 8.16 \times 10^{-4}$

$T = \frac{264\,Q}{\Delta s}$

$\Delta s = 317.8 - 297.6 = 20.2$ 46.7'

$= \frac{264 \times 364}{46.7}$

$T = 2060$ g/d/ft

$T = \frac{264\,Q}{\Delta s}$

$\Delta s = 321.4 - 310.9 = 10.5\,\#/in^2 = 24.2$

$= \frac{264 \times 395}{24.25}$

$T = 4300$ g/d/ft

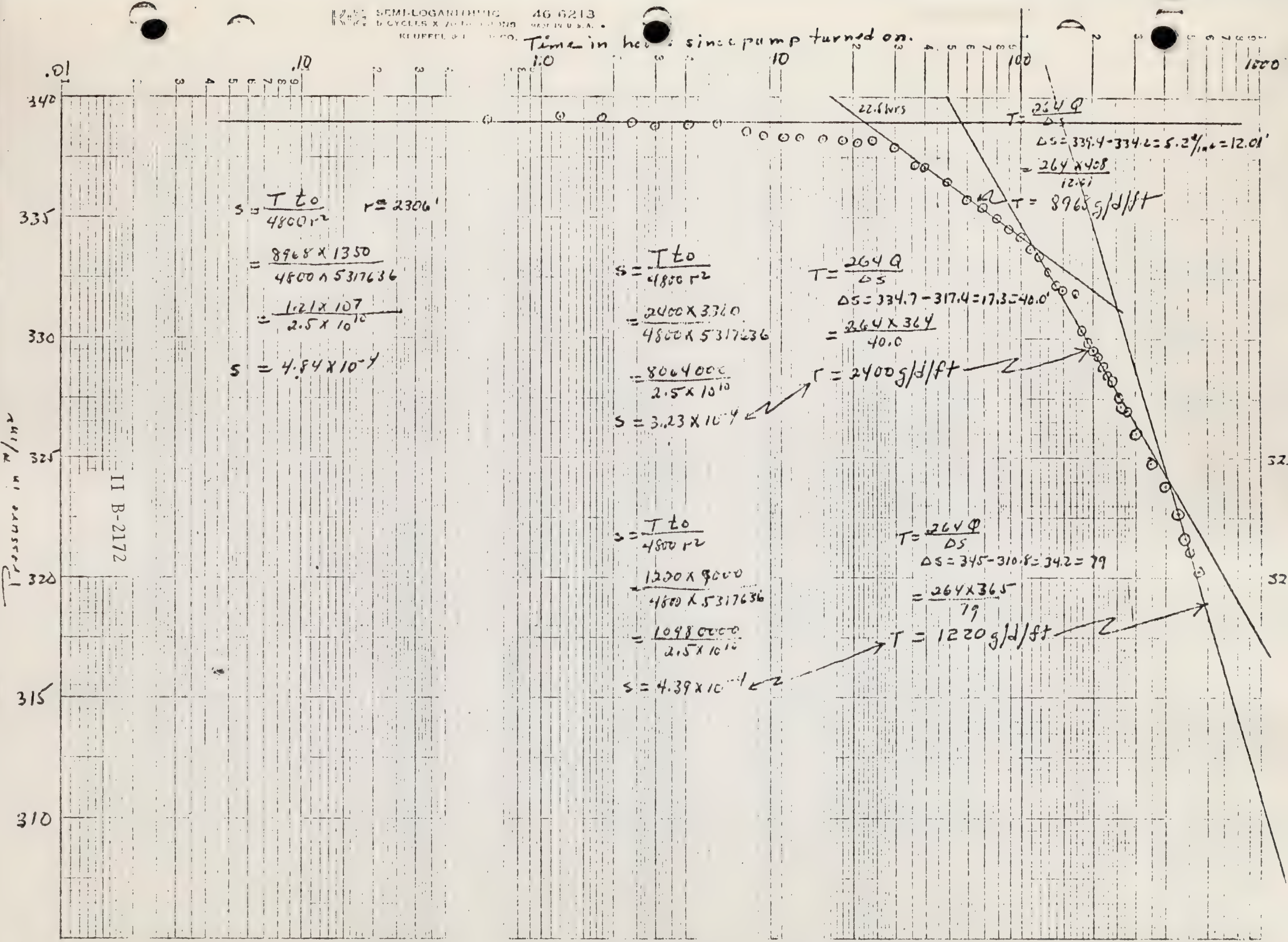
$T = \frac{264\,Q}{\Delta s}$

$\Delta s = 325.0 - 293.3 = 31.7 = 73.23'$

$= \frac{264 \times 365}{73.2}$

$= 1316$ g/d/ft ?

Observation well SG-6 (String 3 - shallow Aquifer)



$T = \frac{264\,Q}{\Delta s}$

$\Delta s = 339.4 - 334.2 = 5.2\,\#/\text{in}^2 = 12.01'$

$= \frac{264 \times 408}{12.01}$

$T = 8965\ \text{g/d/ft}$

$s = \frac{T\,t_o}{4800\,r^2} \quad r = 2306'$

$= \frac{8968 \times 1350}{4800 \times 5317636}$

$= \frac{1.21 \times 10^7}{2.5 \times 10^{10}}$

$s = 4.84 \times 10^{-4}$

$s = \frac{T\,t_o}{4800\,r^2}$

$= \frac{2400 \times 3360}{4800 \times 5317636}$

$= \frac{8064000}{2.5 \times 10^{10}}$

$s = 3.23 \times 10^{-4}$

$T = \frac{264\,Q}{\Delta s}$

$\Delta s = 334.7 - 317.4 = 17.3 = 40.0'$

$= \frac{264 \times 364}{40.0}$

$T = 2400\ \text{g/d/ft}$

$s = \frac{T\,t_o}{4800\,r^2}$

$= \frac{1220 \times 9000}{4800 \times 5317636}$

$= \frac{10980000}{2.5 \times 10^{10}}$

$s = 4.39 \times 10^{-4}$

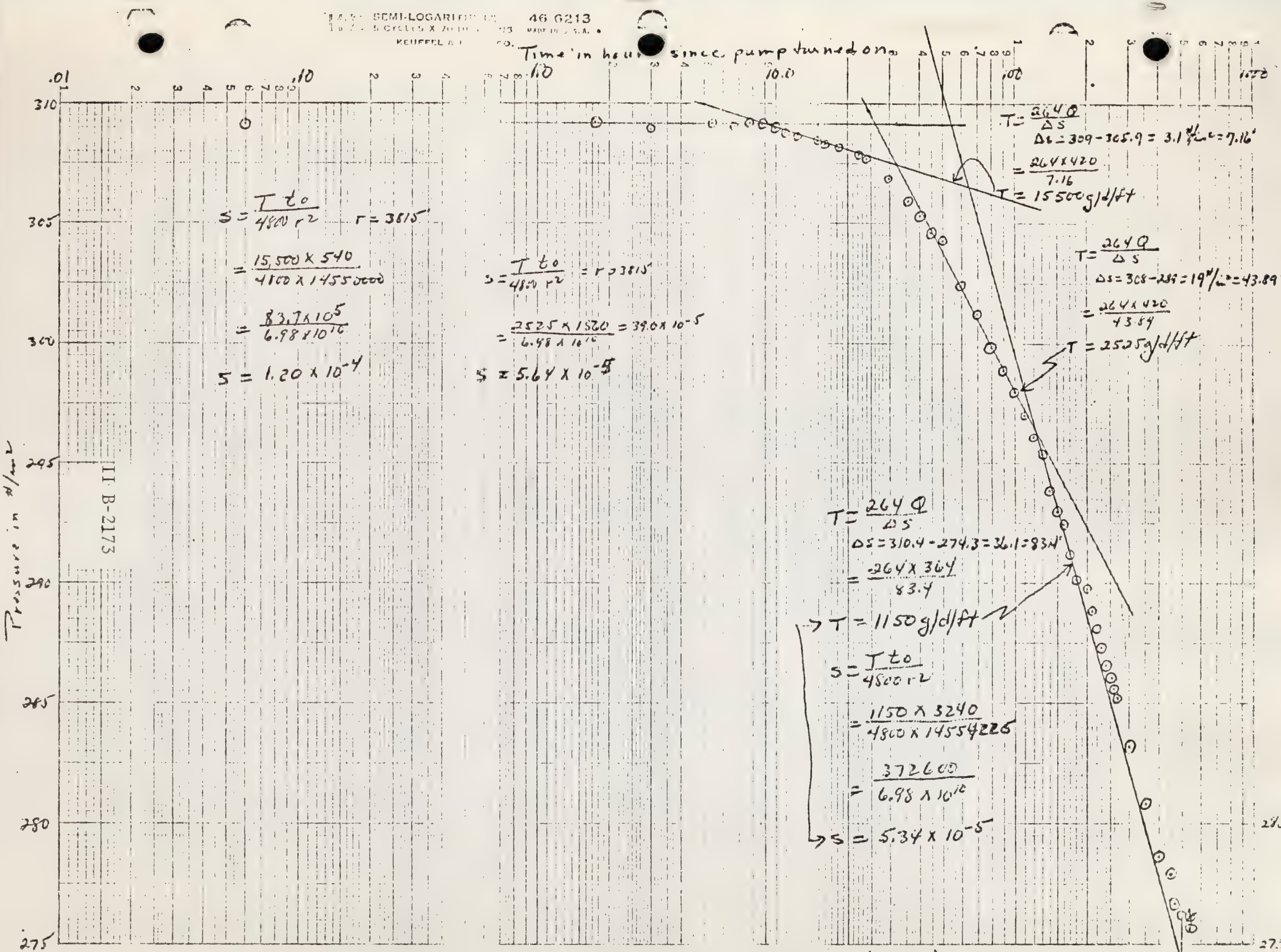
$T = \frac{264\,Q}{\Delta s}$

$\Delta s = 345 - 310.8 = 34.2 = 79$

$= \frac{264 \times 365}{79}$

$T = 1220\ \text{g/d/ft}$

⊙ Observation well SG-10A (string #3 - shallow Aquifer)



$$T = \frac{264\,Q}{\Delta s}$$
$$\Delta s = 309 - 305.9 = 3.1 \#/in^2 = 7.16'$$
$$= \frac{264 \times 420}{7.16}$$
$$T = 15500\ g/d/ft$$

$$T = \frac{264\,Q}{\Delta s}$$
$$\Delta s = 308 - 289 = 19 \#/in^2 = 43.89$$
$$= \frac{264 \times 420}{43.54}$$
$$T = 2525\ g/d/ft$$

$$S = \frac{T\,t_o}{4800\,r^2} \quad r = 3815'$$
$$= \frac{15{,}500 \times 540}{4800 \times 14550000}$$
$$= \frac{83.7 \times 10^5}{6.98 \times 10^{10}}$$
$$S = 1.20 \times 10^{-4}$$

$$S = \frac{T\,t_o}{4800\,r^2} = r = 3815'$$
$$= \frac{2525 \times 1520}{6.98 \times 10^{10}} = 39.0 \times 10^{-5}$$
$$S = 5.64 \times 10^{-5}$$

$$T = \frac{264\,Q}{\Delta s}$$
$$\Delta s = 310.4 - 274.3 = 36.1 = 83.4'$$
$$= \frac{264 \times 364}{83.4}$$
$$\rightarrow T = 1150\ g/d/ft$$
$$S = \frac{T\,t_o}{4800\,r^2}$$
$$= \frac{1150 \times 3240}{4800 \times 14554225}$$
$$= \frac{372600}{6.98 \times 10^{10}}$$
$$\rightarrow S = 5.34 \times 10^{-5}$$

II B-2173

Observation Well SG-11 (string #3-shallow Aquifer)

tlanticRichfieldCompany Internal Correspondence

Date: March 17, 1975

To: Mr. John Matis - Denver

From: Charles Martin - Plano

Subject: Drawdown-Recovery Test of November, 1974 to January, 1975, on the C-b Lease

Attached are the tabulated time and pressure data for the drawdown-recovery test on the C-b lease in Rio Blanco County, Colorado, which you requested. Please note that this is not a complete listing of all readings. Our plots of pressure versus time were made from these data. Included are the pressure reading and a corrected bottomhole pressure for each time. The corrected pressure was obtained with the Permagauge Correction factors supplied by Sperry Sun. The correction factor used is shown with each well.

Judgment had to be used sometimes when calculating the cumulative times because of uncertainties in the data.

Data are included for the following wells:

SG-6	- Strings 1, 2, and 3
SG-10	- Strings 1, 2, and 3
SG-11	- Strings 1, 2, and 3
AT-1	- String 1
AT-1A	- Strings 1 and 3 (We did not receive all of String 2 data so it is not included.)
AT-1B	- String 1
AT-1C	- Strings 1, 2, and 3
AT-1D	- Strings 1 and 2

Charles Martin

Charles Martin

CM:ab

Atchs.

cc: Dr. A. L. Barnes

CR LEASE
RIO BLANCO CO., COLORADO
WELL NO. 6

P (CORRECTED) = 1.0500835 * P (READING) - 0.018
P (CORRECTED) = 1.0512342 * P (READING) - 0.017
P (CORRECTED) = 1.0391517 * P (READING) - 0.007

---------STRING NO. 1-------			------STRING NO. 2---------			------STRING NO 3---------		
TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI	TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI	TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI
0.15	494.9	522.9	0.30	437.6	460.0	0.50	320.6	333.4
2.50	494.3	522.3	2.70	437.6	460.0	2.90	320.8	333.4
10.40	494.7	522.7	10.50	437.6	460.1	10.70	320.6	333.4
15.10	493.8	521.8	15.30	437.5	459.9	15.50	320.6	333.1
19.95	494.3	522.3	20.70	437.5	459.9	20.90	320.6	333.1
30.80	493.6	521.5	30.30	437.6	460.0	30.50	320.3	332.9
40.95	493.5	521.5	40.50	437.8	460.2	40.70	320.2	332.7
50.00	494.0	522.0	50.70	438.1	460.5	50.90	319.9	332.4
60.20	493.2	521.1	60.30	437.9	460.3	60.50	319.2	331.7
70.40	492.7	520.7	70.50	438.2	460.6	70.70	318.9	331.4
80.00	492.0	519.9	80.70	437.8	460.2	80.40	317.9	330.3
90.75	492.6	520.5	90.30	438.3	460.8	90.50	317.7	330.1
100.40	492.7	520.6	100.50	438.4	460.8	100.70	317.1	329.6
119.55	491.8	519.8	110.70	438.4	460.9	110.90	316.6	329.0
130.95	491.1	519.0	120.30	438.6	461.0	120.50	316.1	328.5
139.95	490.7	518.5	131.10	438.6	461.1	131.30	315.5	327.6
150.75	487.6	515.2	140.15	438.7	461.1	140.40	315.0	327.3
192.00	495.5	523.5	150.90	438.7	461.2	151.15	314.5	326.6
200.00	495.6	523.7	160.45	438.5	460.9	160.15	314.2	325.5
210.00	495.7	523.7	170.70	438.0	460.4	170.65	313.1	325.3
220.00	495.6	523.6	181.50	437.7	460.1	181.00	312.5	324.6
230.00	495.7	523.7	194.10	437.5	459.9	194.30	312.0	324.2
240.00	496.9	524.9	200.70	441.4	464.5	200.90	312.4	325.2
251.00	495.7	523.6	210.30	441.7	464.3	210.50	312.5	324.7
261.00	496.1	524.2	220.50	441.5	464.1	220.70	312.1	324.4
269.00	495.7	523.6	230.70	441.2	463.8	230.90	311.6	323.6
281.00	495.9	523.9	250.50	441.7	464.4	242.30	311.7	323.4
291.00	495.9	523.9	260.70	441.7	464.3	250.70	311.1	323.2
301.00	495.8	523.9	271.50	441.4	463.9	260.90	310.6	323.0
311.00	496.0	524.1	280.50	441.1	463.7	271.80	310.4	322.5
338.50	495.5	523.4	330.30	440.5	463.6	280.70	310.0	322.1
350.00	495.7	523.7	340.60	440.3	462.8	330.50	308.2	320.5
362.00	494.9	522.9	350.60	440.2	462.7	340.80	307.6	319.6
370.00	495.4	523.4	360.40	440.1	462.6	360.60	307.2	319.2
382.00	495.1	523.2	370.50	439.6	462.1	370.80	306.7	318.7
390.00	495.1	523.2	380.80	439.3	461.8	381.00	306.4	318.4
402.00	495.4	523.4	390.00	439.2	461.7	390.00	305.9	317.9
410.00	495.5	523.6	400.60	439.0	461.5	400.80	305.8	317.8
421.00	495.5	523.6	410.20	439.1	461.6	410.40	305.4	317.4
429.00	495.3	523.4	420.40	438.8	461.3	420.60	305.6	317.6

--------STRING NO. 1-------			------STRING NO. 2---------			------STRING NO 3---------		
TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI	TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI	TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI
440.50	495.7	523.7	431.40	439.3	461.5	431.60	305.9	317.9
452.50	495.7	523.6	441.00	438.6	461.0	441.20	304.9	316.9
460.50	495.4	523.5	450.60	438.4	460.6	450.80	304.7	316.6
472.50	495.8	523.9	460.80	438.3	460.7	461.00	304.5	316.4
480.50	495.7	523.6	470.40	438.1	460.5	470.60	304.4	316.3
493.00	495.7	523.5	480.60	441.9	464.5	480.80	304.0	315.9
505.00	495.9	524.0	490.60	441.8	464.4	491.00	304.0	315.9
521.00	496.4	524.5	500.40	441.7	464.3	500.60	303.9	315.8
525.00	496.6	524.7	510.60	438.7	461.2	520.40	303.7	315.6
533.00	496.5	524.6	530.40	441.7	464.3	530.60	303.5	315.4
544.00	496.2	524.3	552.40	442.1	464.7	553.00	302.7	314.5
551.90	496.1	524.1	556.90	441.9	464.5	557.00	302.5	314.3
556.40	496.0	524.1	561.30	442.0	464.5	561.00	302.4	314.3
560.90	495.9	524.0	564.40	442.0	464.6	565.00	302.3	314.2
565.30	495.5	523.7	567.40	442.1	464.7	568.55	302.4	314.3
568.40	495.9	524.0	571.25	442.4	465.1	568.00	302.6	314.6
571.00	494.9	522.9	575.50	441.6	464.5	571.00	302.7	314.6
575.25	494.0	522.0	579.00	441.9	464.5	575.00	302.3	314.1
579.00	493.8	521.6	583.25	442.1	464.8	579.00	302.1	313.9
583.00	494.0	522.0	587.50	442.3	464.9	583.00	302.4	314.2
587.25	494.0	522.0	591.00	442.4	465.0	587.00	302.5	314.3
591.00	494.1	522.1	595.25	442.4	465.1	591.00	302.8	314.7
595.00	494.4	522.4	599.00	442.0	464.6	595.00	303.0	314.9
599.25	493.8	521.8	603.00	442.2	464.8	599.00	302.8	314.6
603.00	494.0	522.0	611.50	442.2	464.8	603.00	303.1	315.0
607.50	493.9	521.6	615.00	442.2	464.9	608.00	303.2	315.1
611.25	494.0	522.0	619.25	442.1	464.7	611.00	303.4	315.3
615.00	494.0	521.9	623.50	442.2	464.9	615.00	303.6	315.5
619.00	493.5	521.5	627.00	441.9	464.6	619.00	303.5	315.5
623.25	494.0	522.0	631.25	442.0	464.6	623.50	303.8	315.7
625.00	493.6	521.6	635.50	442.1	464.7	627.30	303.7	315.6
631.00	493.5	521.5	639.30	442.2	464.8	632.00	303.9	315.8
635.25	493.5	521.5	643.25	442.3	464.9	635.50	304.0	315.9
639.50	493.9	521.9	648.00	442.0	464.7	640.00	304.4	316.3
643.50	493.1	521.1	651.00	442.0	464.5	643.50	304.5	316.4
648.00	493.7	521.6	655.25	442.0	464.6	647.50	304.4	316.4
651.00	493.7	521.7	659.50	442.2	464.8	651.00	304.5	316.4
655.00	494.0	522.0	663.00	442.3	464.9	655.00	304.6	316.6
659.25	494.2	522.2	670.00	442.3	464.9	659.45	304.9	316.9
663.00	494.3	522.3	675.00	442.2	464.9	663.25	305.1	317.0
670.00	493.3	521.3	[illegible]	442.0	464.7	670.00	305.0	316.9
675.00	494.8	522.8	690.00	442.3	464.9	675.00	305.1	317.1
680.00	494.5	522.5	695.00	442.2	464.6	680.00	305.0	317.0
685.00	491.9	519.8	705.00	442.2	464.8	685.00	305.0	317.0
690.00	494.6	522.6	710.00	442.1	464.7	690.00	305.3	317.2
695.00	494.5	522.7	720.00	442.4	465.1	695.00	305.2	317.2
700.00	492.1	[illegible]	725.00	442.1	464.7	700.00	305.3	317.2
705.00	494.4	522.4	730.00	442.2	464.9	705.00	305.2	317.2
710.00	494.3	522.3	735.00	442.3	465.0	710.00	305.2	317.1
715.00	491.9	519.7	740.00	442.2	464.8	715.00	305.2	317.2
720.00	494.7	522.7	750.00	442.3	464.9	720.00	305.4	317.3
725.00	494.3	522.3	755.00	442.1	464.8	730.00	305.0	316.9
735.00	494.3	522.3	765.00	442.4	465.0	740.00	305.0	316.8
740.00	494.2	522.2	770.00	442.4	465.1	750.00	304.8	316.7
745.00	491.7	519.5	780.00	442.4	465.1	760.00	304.6	316.6

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---------STRING NO.  1--------   ------STRING NO.  2----------   ------STRING NO  3---------
          PRESSURE  CORRECTED                PRESSURE  CORRECTED                PRESSURE  CORRECTE
 TIME     READING   PRESSURE       TIME      READING   PRESSURE       TIME      READING   PRESSURE
 HOURS    PSI       PSI            HOURS     PSI       PSI            HOURS     PSI       PSI

  750.00   494.0     522.0        785.00     442.3     464.9         770.00     304.6     316.6
  755.00   494.0     521.9        791.00     442.4     465.1         780.00     304.5     316.4
  760.00   491.1     519.0        796.00     442.2     464.8         790.00     304.4     316.3
  765.00   494.0     522.0        801.00     442.2     464.9         795.00     303.9     315.8
  770.00   494.2     522.2        811.00     442.4     465.0         800.00     304.2     316.1
  775.00   491.2     519.0        816.00     442.6     465.2         805.00     303.9     315.8
  780.00   494.0     522.0        826.00     442.2     464.8         810.00     304.0     315.9
  785.00   493.9     521.9        831.00     442.2     464.8         820.00     304.0     315.9
  791.00   491.4     519.2        841.00     442.5     465.2         825.00     303.9     315.8
  796.00   493.4     521.4        861.00     442.2     464.9         830.00     303.9     315.8
  801.00   493.7     521.7        871.00     442.4     465.0         835.00     304.2     316.1
  806.00   490.8     518.6        891.00     442.3     464.9         840.00     304.3     316.2
  811.00   493.5     521.5        911.00     436.6     459.0         850.00     304.4     316.3
  816.00   494.0     521.9       1005.00     435.1     457.4         860.00     304.5     316.5
  821.00   491.0     518.8       1046.00     441.2     463.8         870.00     304.8     316.7
  826.00   493.1     521.1       1066.00     441.3     463.9         880.00     305.1     317.0
  831.00   493.2     521.1       1123.00     441.4     464.0         890.00     305.4     317.4
  841.00   493.2     521.2       1185.00     441.5     464.1         913.00     306.0     318.0
  861.00   492.9     520.8       1205.00     441.6     464.2         933.00     306.3     318.3
  871.00   492.7     520.6       1225.00     441.5     464.1         953.00     306.6     318.6
  881.00   489.7     517.5       1247.00     440.1     462.7         973.00     307.1     319.2
  891.00   492.6     520.5       1270.00     440.1     462.7         993.00     307.5     319.6
  911.00   489.3     517.1       1290.00     440.1     462.6        1013.00     307.9     320.0
 1048.00   494.1     522.1       1310.00     440.2     462.7        1033.00     308.2     320.3
 1066.00   493.8     521.8       1330.00     438.9     461.3        1053.00     308.4     320.4
 1123.00   493.4     521.4       1350.00     438.7     461.1        1073.00     308.6     320.6
 1185.00   491.9     519.8       1370.00     438.9     461.4        1093.00     308.9     320.9
 1205.00   494.6     522.6       1390.00     438.3     460.7        1113.00     309.2     321.3
 1225.00   495.2     523.3       1410.00     431.1     453.2        1133.00     309.7     321.6
 1245.00   495.1     523.2           0.0       0.0       0.0        1153.00     310.0     322.1
 1265.00   495.2     523.3           0.0       0.0       0.0        1173.00     310.2     322.3
 1285.00   495.2     523.3           0.0       0.0       0.0        1193.00     310.2     322.3
 1308.00   495.1     523.1           0.0       0.0       0.0        1213.00     310.5     322.7
 1328.00   494.9     523.0           0.0       0.0       0.0        1233.00     310.6     322.6
 1348.00   494.9     522.9           0.0       0.0       0.0        1253.00     310.9     323.1
 1368.00   495.2     523.3           0.0       0.0       0.0        1273.00     311.2     323.4
 1388.00   494.1     522.1           0.0       0.0       0.0        1293.00     311.3     323.5
     0.0     0.0       0.0           0.0       0.0       0.0        1313.00     311.4     323.6
     0.0     0.0       0.0           0.0       0.0       0.0        1333.00     311.4     323.6
     0.0     0.0       0.0           0.0       0.0       0.0        1353.00     311.5     323.7
     0.0     0.0       0.0           0.0       0.0       0.0        1373.00     311.8     324.0
     0.0     0.0       0.0           0.0       0.0       0.0        1413.00     312.1     324.3

 NUMBER OF POINTS=  132        124        137
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CA LEASE
RIO BLANCO CO., COLORADO
WELL NO. 10

P (CORRECTED) = 1.0544545 * P (READING) - 0.019
P (CORRECTED) = 1.0700979 * P (READING) - 0.006
P (CORRECTED) = 1.0415220 * P (READING) - 0.009

STRING NO. 1			STRING NO. 2			STRING NO. 3		
TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI	TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI	TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI
0.20	455.4	480.2	0.40	649.4	694.9	0.60	339.1	353.1
5.55	455.1	479.9	5.75	649.3	694.8	5.95	338.9	352.9
10.55	454.4	479.1	10.55	648.6	694.1	10.75	338.4	352.4
20.00	453.9	478.7	20.15	648.2	693.6	20.35	338.1	352.1
30.00	453.3	478.0	30.00	648.1	693.5	30.00	337.9	351.9
40.95	452.8	477.5	41.15	647.1	692.5	41.35	337.0	351.0
50.00	452.1	476.5	60.40	650.0	695.5	60.60	335.7	349.7
60.20	451.1	475.7	80.80	649.6	695.1	80.40	334.9	348.8
70.40	450.5	475.0	100.00	648.5	694.0	100.20	334.2	348.1
80.60	450.1	474.6	120.00	647.4	692.8	120.00	333.4	347.2
100.40	454.7	479.5	130.00	641.7	686.7	140.75	332.2	346.0
110.00	454.5	479.3	161.00	651.4	697.0	150.00	332.0	345.8
121.95	453.9	478.6	170.00	651.5	697.2	170.00	330.9	344.6
129.80	453.3	478.0	180.00	651.1	696.5	180.00	330.4	344.1
140.00	452.6	477.3	200.00	650.0	695.5	200.00	329.7	343.4
149.55	452.1	476.7	220.00	649.5	695.0	220.00	328.8	342.4
170.00	453.7	478.4	241.50	651.2	696.9	240.00	328.2	341.8
180.00	455.0	479.8	262.00	650.2	695.8	261.00	327.2	340.8
190.00	456.6	481.4	280.50	650.5	696.2	283.00	326.6	340.2
200.00	457.4	482.3	302.00	650.1	695.7	300.95	325.9	339.5
211.00	457.7	482.6	330.00	651.7	697.4	319.20	325.7	339.2
220.00	457.6	482.5	342.00	650.8	696.5	343.00	324.6	338.1
230.00	457.6	482.5	362.50	650.0	695.5	351.00	324.8	338.3
241.00	457.5	482.5	380.50	647.9	693.3	370.00	324.5	338.0
250.00	457.8	482.7	400.75	650.3	695.9	389.40	324.2	337.7
262.00	457.8	482.7	420.50	649.2	694.7	402.00	323.9	337.3
271.00	457.9	482.8	441.00	650.0	695.5	422.00	323.3	336.7
280.00	457.2	482.1	455.75	648.5	694.0	442.00	322.0	335.4
291.00	457.4	482.3	473.00	649.8	695.3	462.00	321.8	335.2
302.00	457.5	482.4	495.75	649.4	694.9	482.00	321.6	335.0
319.00	457.6	482.5	511.00	648.5	694.0	502.00	321.1	334.4
342.00	456.4	481.2	521.50	647.7	693.1	522.00	321.0	334.3
362.00	457.2	482.1	543.55	649.9	695.4	542.00	320.6	333.9
381.00	456.2	481.1	552.40	649.7	695.2	546.00	320.0	333.3
400.50	456.4	481.3	561.00	649.2	694.7	553.00	320.3	333.6
420.00	456.6	481.5	567.35	648.8	694.3	561.00	320.3	333.6
441.00	456.5	481.4	585.75	648.1	693.5	568.70	320.5	333.8
461.00	455.7	480.5	600.75	647.8	693.2	580.50	321.2	334.5
481.00	456.5	481.4	613.00	647.0	692.4	588.50	321.1	334.4
501.00	456.6	481.5	620.50	646.7	692.0	600.50	321.6	335.1

STRING NO. 1			STRING NO. 2			STRING NO 3		
TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI	TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI	TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI
521.00	456.8	481.7	628.95	649.6	695.1	613.50	322.2	335.6
541.00	456.8	481.7	640.95	649.2	694.7	620.50	322.4	335.8
544.65	456.8	481.7	649.00	646.7	692.0	629.50	322.5	335.9
553.40	456.7	481.6	650.75	648.0	693.4	640.50	322.2	335.5
556.90	456.6	481.5	669.00	647.8	693.2	649.50	323.5	336.9
560.40	456.7	481.6	670.00	641.0	685.9	661.00	323.5	337.0
560.75	456.7	481.6	675.00	646.5	691.8	669.00	324.0	337.4
569.00	456.4	481.3	680.00	647.3•	692.7	670.00	324.0	337.4
600.50	456.5	481.4	690.00	645.9	691.2	675.00	323.9	337.4
613.00	456.5	481.4	695.00	646.6	691.9	680.00	324.1	337.5
620.00	456.5	481.4	710.00	649.7	695.2	685.00	323.9	337.4
629.00	455.3	480.2	720.00	648.3	693.7	690.00	323.9	337.4
640.75	456.7	481.5	725.00	649.1	694.6	695.00	323.7	337.1
649.00	456.5	481.4	735.00	647.6	693.0	700.00	323.6	337.0
660.00	456.4	481.3	740.00	648.3	693.7	705.00	323.4	336.8
669.00	456.5	481.4	750.00	647.0	692.4	710.00	323.1	336.5
670.00	457.2	482.1	755.00	647.7	693.1	715.00	323.0	336.4
675.00	456.4	481.3	760.00	635.3	679.8	720.00	322.8	336.2
680.00	456.6	481.5	765.00	646.4	691.7	725.00	322.6	336.0
685.00	457.0	481.9	770.00	647.3	692.6	730.00	322.4	335.8
690.00	456.6	481.5	775.00	633.1	677.4	735.00	322.3	335.7
695.00	456.5	481.4	780.00	645.6	690.8	740.00	322.1	335.4
700.00	451.3	476.2	785.00	646.4	691.7	745.00	321.9	335.2
705.00	456.3	481.2	806.00	650.2	695.8	750.00	321.7	335.0
710.00	456.5	481.4	815.00	649.7	695.3	755.00	321.5	334.9
715.00	457.0	482.0	820.50	649.1	694.6	760.00	321.6	334.9
720.00	456.5	481.4	830.50	650.2	695.6	765.00	321.4	334.7
725.00	456.6	481.5	840.50	649.3	694.9	770.00	321.5	334.8
730.00	457.0	481.9	850.50	649.5	695.0	775.00	321.7	335.1
735.00	456.6	481.5	860.50	649.3	694.8	780.00	321.1	334.4
740.00	456.6	481.5	870.50	649.3	694.8	785.00	321.1	334.5
745.00	457.1	482.0	880.50	649.1	694.6	790.00	320.9	334.2
750.00	456.6	481.5	890.50	649.4	695.0	795.00	320.9	334.2
755.00	456.5	481.4	900.50	649.6	695.1	800.00	320.8	334.1
760.00	457.1	482.1	910.50	649.8	695.3	805.00	320.9	334.2
765.00	456.6	481.5	920.50	649.1	694.6	810.00	320.9	334.2
770.00	456.7	481.5	930.50	649.2	694.7	815.00	321.1	334.4
775.00	456.9	481.8	940.50	649.5	695.0	820.00	320.8	334.1
780.00	456.6	481.5	950.50	649.3	694.8	825.00	320.9	334.2
785.00	456.7	481.6	960.50	649.4	694.9	830.00	321.5	334.9
790.00	457.1	482.0	970.50	649.1	694.5	835.00	321.6	335.0
795.00	453.3	478.2	980.50	649.1	694.6	840.00	321.9	335.3
800.00	453.3	478.2	990.50	649.4	694.9	845.00	321.9	335.3
805.00	451.3	475.9	1010.50	648.9	694.4	850.00	322.4	335.7
810.00	456.5	481.4	1031.30	649.1	694.6	855.00	322.3	335.7
815.00	456.5	481.4	1051.30	648.7	694.2	860.00	322.6	336.0
820.00	455.4	480.3	1071.30	648.6	694.1	865.00	322.6	336.0
830.00	455.6	480.5	1091.30	648.9	694.4	870.00	322.5	336.2
840.00	455.5	480.4	1111.30	648.5	694.0	875.00	323.1	336.5
850.00	455.4	480.3	1131.30	648.7	694.2	880.00	323.3	336.7
860.00	455.6	480.5	1151.30	648.7	694.2	885.00	323.5	336.9
870.00	455.3	480.2	1171.30	648.4	693.8	890.00	323.6	337.0
880.00	455.6	480.5	1191.30	648.2	693.6	900.00	323.8	337.2
890.00	455.5	480.4	1211.30	648.4	693.8	910.00	324.1	337.6
900.00	455.3	480.2	1231.30	648.4	693.9	920.00	324.3	337.7

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--------STRING NO.  1-------   ------STRING NO.  2---------   ------STRING NO  3---------
           PRESSURE  CORRECTED              PRESSURE  CORRECTED              PRESSURE  CORRECTED
  TIME     READING   PRESSURE     TIME      READING   PRESSURE     TIME      READING   PRESSURE
  HOURS      PSI       PSI        HOURS       PSI       PSI        HOURS       PSI       PSI

  910.00    455.5     480.3     1251.30     648.3     693.7      930.00     324.4     337.9
  930.00    455.5     480.3     1271.30     648.5     693.9      940.00     324.8     338.3
  950.00    455.5     480.3     1291.30     648.5     693.9      950.00     325.1     338.5
  970.00    455.4     480.3     1314.60     648.4     693.9      960.00     325.4     338.9
  990.00    455.5     480.3     1334.60     648.7     694.1      970.00     325.5     339.0
 1010.00    455.5     480.3        0.0        0.0       0.0      980.00     325.7     339.2
 1030.00    455.3     480.1        0.0        0.0       0.0      990.00     325.6     339.1
 1050.00    455.2     480.1        0.0        0.0       0.0     1000.00     326.1     339.6
 1072.00    455.3     480.1        0.0        0.0       0.0     1010.00     326.2     339.7
 1094.00    455.2     480.1        0.0        0.0       0.0     1020.00     326.1     339.7
 1114.00    455.2     480.0        0.0        0.0       0.0     1030.00     326.2     339.7
 1134.00    455.3     480.1        0.0        0.0       0.0     1040.00     326.4     339.9
 1154.00    455.2     480.0        0.0        0.0       0.0     1050.00     326.6     340.1
 1174.00    455.2     480.0        0.0        0.0       0.0     1060.00     326.7     340.3
 1194.00    455.2     480.0        0.0        0.0       0.0     1070.00     327.2     340.8
 1214.00    455.2     480.0        0.0        0.0       0.0     1080.00     327.3     340.9
 1234.00    455.3     480.1        0.0        0.0       0.0     1090.00     327.2     340.8
 1254.00    455.3     480.1        0.0        0.0       0.0     1100.00     327.4     341.0
 1274.00    455.3     480.1        0.0        0.0       0.0     1110.00     327.5     341.1
 1294.00    455.2     480.1        0.0        0.0       0.0     1120.00     327.6     341.2
 1315.50    455.3     480.1        0.0        0.0       0.0     1130.00     328.1     341.7
 1335.50    455.3     480.1        0.0        0.0       0.0     1140.00     328.0     341.6
    0.0       0.0       0.0        0.0        0.0       0.0     1150.00     328.2     341.8
    0.0       0.0       0.0        0.0        0.0       0.0     1160.00     328.2     341.8
    0.0       0.0       0.0        0.0        0.0       0.0     1170.00     328.5     342.1
    0.0       0.0       0.0        0.0        0.0       0.0     1180.00     328.7     342.3
    0.0       0.0       0.0        0.0        0.0       0.0     1190.00     328.7     342.3
    0.0       0.0       0.0        0.0        0.0       0.0     1200.00     329.0     342.7
    0.0       0.0       0.0        0.0        0.0       0.0     1210.00     329.0     342.6
    0.0       0.0       0.0        0.0        0.0       0.0     1220.00     329.2     342.8
    0.0       0.0       0.0        0.0        0.0       0.0     1230.00     329.4     343.1
    0.0       0.0       0.0        0.0        0.0       0.0     1240.00     329.7     343.3
    0.0       0.0       0.0        0.0        0.0       0.0     1250.00     329.7     343.4
    0.0       0.0       0.0        0.0        0.0       0.0     1260.00     329.4     343.0
    0.0       0.0       0.0        0.0        0.0       0.0     1270.00     329.9     343.6
    0.0       0.0       0.0        0.0        0.0       0.0     1280.00     329.6     343.3
    0.0       0.0       0.0        0.0        0.0       0.0     1290.00     330.1     343.7
    0.0       0.0       0.0        0.0        0.0       0.0     1300.00     330.3     344.0
    0.0       0.0       0.0        0.0        0.0       0.0     1310.00     329.9     343.5
    0.0       0.0       0.0        0.0        0.0       0.0     1320.00     329.2     342.9
    0.0       0.0       0.0        0.0        0.0       0.0     1330.00     329.3     343.0
    0.0       0.0       0.0        0.0        0.0       0.0     1340.00     329.4     343.0
    0.0       0.0       0.0        0.0        0.0       0.0     1350.00     329.5     343.2
    0.0       0.0       0.0        0.0        0.0       0.0     1360.00     329.7     343.3
    0.0       0.0       0.0        0.0        0.0       0.0     1370.00     329.8     343.5
    0.0       0.0       0.0        0.0        0.0       0.0     1380.00     330.0     343.7
    0.0       0.0       0.0        0.0        0.0       0.0     1390.00     330.1     343.8
    0.0       0.0       0.0        0.0        0.0       0.0     1400.00     330.2     343.9
    0.0       0.0       0.0        0.0        0.0       0.0     1410.00     330.3     344.0
    0.0       0.0       0.0        0.0        0.0       0.0     1420.00     330.5     344.3
    0.0       0.0       0.0        0.0        0.0       0.0     1430.00     330.4     344.1

NUMBER OF POINTS=   117       100      140
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CB LEASE
RIO BLANCO CO., COLORADO
WELL NO. 11

P (CORRECTED) = 1.05[illegible] * P (READING) - 0.018
P (CORRECTED) = 1.0512342 * P (READING) - 0.017
P (CORRECTED) = 1.0392427 * P (READING) - 0.008

---------STRING NO.	1--------		------STRING NO.	2----------		------STRING NO	3----------		
TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI	TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI	TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI
0.05	739.4	781.3	1.75	428.3	450.2	1.95	309.5	321.6
0.70	739.7	781.6	2.35	428.3	450.2	2.55	309.5	321.7
1.90	739.5	781.4	3.60	427.3	449.2	3.75	309.3	321.4
3.10	739.5	781.4	4.80	427.1	449.0	5.00	309.0	321.1
4.90	740.0	781.9	6.60	427.3	449.2	6.80	309.1	321.3
6.10	739.8	781.7	7.80	427.2	449.0	8.00	309.0	321.1
8.50	740.2	782.1	10.20	427.4	449.3	10.40	309.1	321.3
9.70	723.4	764.4	11.40	427.4	449.2	11.60	309.0	321.1
21.10	748.4	790.8	13.20	427.3	449.2	13.40	308.8	320.9
22.90	747.0	789.3	14.40	427.0	448.9	14.60	308.6	320.7
24.70	746.7	789.0	15.60	427.0	448.9	15.80	308.5	320.6
27.10	746.4	788.7	16.80	427.0	448.8	17.00	308.4	320.5
29.50	746.1	788.4	18.00	427.0	448.9	18.20	308.4	320.5
34.30	744.9	787.1	19.80	427.0	448.9	20.00	308.2	320.3
40.30	744.6	786.8	21.00	427.0	448.9	21.20	308.1	320.2
49.90	712.3	752.6	22.80	427.1	448.9	23.00	307.9	319.9
70.30	701.9	741.6	24.60	427.2	449.0	24.80	307.7	319.8
79.90	707.6	747.7	26.40	427.4	449.2	26.60	307.4	319.4
90.10	713.6	754.0	28.80	427.1	449.0	29.00	307.0	319.0
100.30	715.3	755.8	31.20	427.3	449.2	31.40	307.0	319.0
110.30	715.2	755.8	36.00	427.2	449.0	36.20	306.2	318.2
120.10	715.7	756.2	42.00	427.1	449.0	42.20	305.3	317.3
130.30	707.0	747.0	51.60	427.5	449.4	51.80	304.2	316.2
140.50	706.3	746.3	61.50	427.0	448.9	62.00	302.4	314.2
150.10	707.0	747.0	72.00	427.1	449.0	72.20	301.1	312.9
150.70	707.5	747.6	81.60	427.2	449.1	81.80	299.8	311.6
160.20	710.4	750.6	91.80	427.3	449.2	92.00	299.0	310.7
170.40	712.7	753.0	102.00	427.4	449.3	102.20	298.0	309.7
200.40	713.1	753.5	112.20	427.6	449.5	112.40	297.0	308.6
210.70	714.4	754.8	121.80	427.4	449.2	122.00	295.0	306.6
220.90	717.4	758.1	132.00	427.8	449.7	132.20	295.4	307.0
231.00	715.2	755.8	142.20	427.3	449.2	142.40	293.5	305.0
240.50	718.5	759.2	151.80	427.1	449.0	152.00	292.9	304.4
250.20	720.8	761.6	152.60	427.7	449.6	153.00	293.1	304.6
260.50	720.7	761.7	162.10	427.5	449.4	162.50	292.0	303.5
270.50	721.9	762.9	172.40	427.4	449.3	172.70	291.1	302.5
280.30	721.2	762.1	182.50	427.1	448.9	182.90	290.1	301.5
290.40	720.3	761.1	192.10	427.6	449.5	192.50	289.8	301.2
300.70	718.7	759.4	202.30	427.4	449.3	202.60	289.1	300.4
334.00	725.4	766.5	212.00	427.5	449.3	213.00	288.4	299.7

STRING NO. 1			STRING NO. 2			STRING NO. 3		
TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI	TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI	TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI
346.00	726.3	767.4	222.80	427.9	449.5	223.10	288.2	299.5
350.00	726.2	767.3	233.00	427.5	449.4	233.40	287.1	298.4
361.50	726.1	767.2	242.70	427.4	449.2	243.00	286.5	297.5
373.50	727.6	768.8	252.20	427.4	449.3	252.60	286.1	297.3
385.50	729.9	771.3	262.40	427.4	449.3	262.60	285.4	296.6
397.50	731.3	772.7	272.00	427.6	449.5	273.00	284.8	296.0
405.50	731.5	772.9	282.20	427.5	449.4	282.50	284.2	295.4
413.00	732.2	773.7	292.30	427.5	449.4	292.60	283.6	294.7
421.00	730.0	771.4	302.50	427.4	449.3	303.00	283.0	294.1
433.00	730.5	771.9	316.40	427.2	449.0	316.60	282.1	293.1
441.00	730.8	772.2	325.70	427.0	448.8	325.80	281.5	292.5
453.00	730.6	772.0	336.20	426.7	448.6	336.40	281.1	292.1
461.00	730.7	772.1	346.40	426.7	448.5	346.60	280.8	291.8
474.00	730.5	771.9	356.60	426.6	448.4	356.60	280.5	291.5
481.00	731.6	773.0	366.90	426.1	447.9	367.00	279.8	290.7
493.00	731.6	773.0	375.40	426.0	447.8	376.60	279.3	290.3
501.50	732.4	773.9	385.80	426.1	447.9	386.80	279.3	290.2
509.00	732.6	774.1	396.80	425.6	447.4	397.00	278.6	289.6
517.00	732.6	774.1	405.10	425.5	447.3	405.30	278.7	289.6
529.00	731.9	773.4	414.70	425.5	447.3	414.90	278.5	289.4
537.50	731.4	772.8	424.90	425.0	446.7	425.10	278.0	288.9
541.50	731.1	772.5	435.10	425.2	447.0	435.30	277.9	288.8
552.50	730.6	772.0	445.30	424.8	446.5	445.50	277.5	288.4
554.50	730.4	771.7	454.90	424.5	446.2	455.30	276.7	287.6
558.20	730.1	771.5	465.10	424.2	445.9	474.90	275.4	287.2
562.20	729.9	771.3	474.70	423.9	445.6	485.10	276.4	287.2
570.40	730.6	772.0	494.90	424.1	445.8	492.45	276.6	[illegible]
571.90	730.5	771.9	499.90	428.0	449.9	510.40	276.1	286.9
574.70	729.8	[illegible]	510.20	427.9	449.8	527.30	275.5	[illegible]
578.70	729.6	770.9	527.10	427.6	449.5	535.10	275.2	[illegible]
582.70	729.9	771.3	536.00	427.4	449.3	553.00	275.0	[illegible]
587.70	725.5	766.6	552.50	427.3	449.1	554.20	275.0	[illegible]
590.70	729.9	771.3	554.00	427.2	449.1	557.40	274.9	285.7
595.70	729.7	771.1	558.20	427.1	448.9	562.00	275.0	[illegible]
598.70	729.1	[illegible]	562.40	426.9	448.8	566.20	[illegible]	[illegible]
601.50	729.5	770.5	566.60	426.9	448.7	570.40	275.8	[illegible]
605.50	730.1	771.5	570.20	426.7	448.5	574.00	276.5	287.5
609.50	730.4	771.7	574.40	426.9	448.3	578.20	276.0	287.5
613.50	730.4	771.8	578.00	426.5	448.4	582.40	276.9	287.7
617.50	730.7	772.1	582.20	426.3	448.1	586.50	277.5	[illegible]
621.50	730.3	771.8	[illegible]	426.4	448.2	590.75	278.1	[illegible]
625.50	730.1	771.5	590.55	426.4	448.3	594.35	278.5	[illegible]
629.50	730.5	771.9	594.15	426.4	448.2	598.55	279.1	[illegible]
633.50	730.5	771.9	598.35	426.5	448.3	605.20	279.2	290.1
637.50	731.0	772.4	601.00	426.1	447.9	609.40	279.4	[illegible]
641.50	731.4	772.8	605.20	425.9	447.7	613.60	279.9	[illegible]
645.50	731.5	773.0	[illegible]	[illegible]	447.8	617.20	280.3	291.4
650.00	731.1	772.6	613.50	425.9	447.7	621.40	280.6	[illegible]
653.50	730.5	772.0	617.20	425.7	447.5	625.00	281.0	[illegible]
657.50	731.1	772.6	621.50	425.8	447.6	629.20	281.4	[illegible]
661.50	731.0	772.4	625.00	425.7	447.5	633.40	281.4	[illegible]
664.00	730.7	772.1	629.20	425.2	447.0	636.40	281.6	[illegible]
669.50	730.7	772.2	[illegible]	425.3	447.1	641.20	283.3	[illegible]
673.10	730.1	771.5	637.60	425.3	447.1	645.40	282.7	[illegible]
677.00	729.9	771.2	641.20	425.4	447.1	649.50	282.6	[illegible]

STRING NO. 1			STRING NO. 2			STRING NO. 3		
TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI	TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI	TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI
681.00	729.4	770.6	653.15	427.5	449.6	653.00	282.9	294.0
689.00	729.9	771.2	656.75	427.6	449.5	657.50	283.4	294.6
701.00	724.1	765.1	661.54	427.4	449.3	662.45	283.7	294.9
713.00	726.5	767.7	665.15	427.5	449.3	665.35	284.1	295.3
721.00	727.8	769.0	670.00	427.2	449.1	669.35	284.5	295.7
733.00	726.0	767.1	675.00	427.1	449.0	673.00	284.8	295.9
740.50	726.8	768.0	680.00	427.1	448.9	681.00	284.8	295.9
752.50	727.5	768.7	685.00	427.0	448.9	692.00	284.1	295.3
760.50	727.1	768.3	690.00	426.7	448.5	701.00	283.3	294.4
772.50	724.5	765.6	695.00	426.9	448.6	709.00	282.5	293.5
780.50	725.4	766.5	700.00	426.9	448.7	717.00	281.5	292.4
788.50	726.8	768.0	705.00	425.4	448.3	728.00	280.8	291.9
793.00	727.5	768.8	710.00	426.5	448.3	740.00	280.2	291.2
801.50	724.4	765.4	715.00	426.6	448.4	748.00	279.6	290.6
805.50	725.7	766.8	720.00	426.4	448.2	760.00	278.8	289.7
825.00	722.6	763.5	730.00	426.1	447.9	768.00	278.7	289.6
840.00	724.9	766.0	740.00	426.1	447.9	780.00	277.6	288.5
860.00	725.1	766.2	750.00	425.5	447.3	793.00	277.5	288.4
880.00	727.6	768.8	760.00	425.6	447.4	801.00	277.4	288.6
890.00	728.1	769.3	770.00	425.7	447.5	813.00	278.6	289.5
910.00	727.9	769.1	780.00	425.0	446.8	839.50	280.9	291.9
930.00	727.8	769.0	793.00	425.2	446.9	859.50	282.5	293.5
940.00	724.5	765.6	801.00	425.5	447.2	889.50	285.3	296.4
950.00	725.9	767.0	813.00	425.3	447.0	910.00	286.6	297.6
970.00	719.6	760.4	839.50	424.7	446.5	930.00	287.1	298.0
990.00	719.2	759.9	859.50	424.3	446.0	950.00	288.6	299.4
1010.00	720.9	761.6	889.50	426.4	450.3	970.00	289.5	300.2
1030.00	722.1	763.0	910.00	427.7	449.6	990.00	290.1	301.5
1050.00	719.1	759.8	930.00	427.2	449.1	1010.00	290.7	302.1
1070.00	722.3	763.2	950.00	426.8	448.6	1030.00	291.7	303.2
1090.00	723.9	764.9	970.00	426.2	448.0	1050.00	292.4	303.6
1110.00	725.0	766.0	990.00	426.1	450.0	1070.00	292.9	304.4
1130.00	725.1	766.2	1010.00	427.3	449.2	1090.00	293.5	305.0
1150.00	725.5	766.5	1050.00	426.9	448.7	1110.00	294.4	305.9
1170.00	726.0	767.1	1070.00	426.4	448.2	1130.00	295.1	306.7
1190.00	724.3	765.3	1090.00	425.9	447.7	1150.00	295.7	307.3
1210.00	724.5	765.6	1110.00	425.7	447.5	1170.00	295.8	307.0
1230.00	724.9	765.9	1130.00	425.5	447.3	1190.00	296.5	307.2
1250.00	725.8	766.9	1150.00	427.7	449.6	1210.00	297.4	308.5
1270.00	726.1	767.2	1170.00	427.4	449.2	1230.00	297.6	308.5
1290.00	723.5	764.5	1190.00	427.0	448.5	1250.00	297.[illegible]	[illegible]
1310.00	720.9	761.8	1210.00	426.6	448.4	1270.00	296.3	31[illegible].0
1330.00	720.4	761.4	1230.00	426.4	448.2	1290.00	296.[illegible]	31[illegible].4
1350.00	721.0	761.9	1250.00	428.6	449.9	1310.00	296.5	31[illegible].2
1370.00	720.9	761.8	1270.00	427.0	449.3	1330.00	297.3	30[illegible].9
1390.00	721.2	762.1	1290.00	427.1	448.9	1350.00	297.5	30[illegible].2
0.0	0.0	0.0	1310.00	426.7	448.6	1370.00	296.2	30[illegible].6
0.0	0.0	0.0	1330.00	426.4	448.3	1390.00	296.7	31[illegible].4
0.0	0.0	0.0	1350.00	426.1	448.0	0.0	0.0	0.0
0.0	0.0	0.0	1370.00	425.9	447.7	0.0	0.0	.0
0.0	0.0	0.0	1390.00	425.5	447.3	0.0	0.0	0.0

NUMBER OF POINTS= 141 140 145

CB LEASE
RIO BLANCO CO., COLORADO
WELL NO. AT1

P (CORRECTED) = 1.0441885 * P (READING) - 0.003
P (CORRECTED) =

---------STRING NO. 1-------			------STRING NO.					
TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI	TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI	TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI
0.01	354.9	370.6						
1.00	262.4	274.0						
2.00	252.2	263.3						
3.00	244.4	255.2						
4.00	237.1	247.6						
5.00	232.2	242.5						
7.00	231.0	241.2						
8.00	224.4	234.3						
9.00	221.3	231.1						
10.00	222.5	232.3						
11.00	216.8	226.4						
12.00	214.0	223.4						
14.00	210.7	220.0						
16.00	205.5	214.5						
18.00	202.8	211.7						
20.00	200.3	209.2						
22.00	197.1	205.8						
24.00	195.6	204.2						
26.00	193.5	202.0						
28.00	191.2	199.7						
30.00	190.2	198.6						
32.00	187.1	195.4						
34.00	185.9	194.1						
36.00	184.5	192.6						
38.00	183.3	191.4						
40.00	182.0	190.0						
42.00	181.2	189.2						
44.00	180.3	188.2						
46.00	180.7	188.7						
48.00	177.7	185.5						
50.00	172.1	[illegible]						
52.00	170.9	178.5						
54.00	172.9	180.5						
56.75	172.9	180.5						
58.00	172.2	179.8						
60.00	171.5	179.1						
62.00	170.4	177.9						
64.00	169.4	176.9						
66.00	166.7	174.0						
68.00	167.5	175.0						

STRING NO. 1			STRING NO.					
TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI	TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI	TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI
70.00	168.1	175.5						
72.00	165.7	173.1						
74.00	164.5	171.8						
76.00	164.0	171.2						
78.00	163.5	170.7						
80.00	163.2	170.4						
82.00	162.4	169.6						
84.00	161.2	168.3						
86.00	160.4	167.4						
88.00	159.1	166.1						
90.00	158.5	165.5						
92.00	157.7	164.7						
94.00	157.7	164.7						
96.00	156.8	163.7						
98.00	154.7	161.6						
100.00	154.4	161.2						
110.00	153.6	160.6						
120.00	151.4	158.1						
130.00	149.8	156.5						
140.00	147.5	154.0						
150.00	144.8	151.2						
160.00	144.5	151.2						
170.00	142.9	149.3						
180.00	143.4	149.7						
190.00	141.9	148.2						
200.00	140.1	146.3						
210.00	138.7	144.9						
220.00	135.7	141.7						
230.00	136.0	142.0						
240.00	134.6	140.5						
250.00	133.4	139.3						
260.00	132.7	138.6						
270.00	129.2	134.9						
280.00	130.7	136.5						
291.00	129.7	135.7						
301.00	130.1	135.9						
321.00	130.2	135.9						
341.00	128.2	133.8						
361.00	126.5	132.1						
381.00	129.5	135.3						
401.00	126.0	131.5						
421.00	125.9	131.5						
440.00	123.7	129.2						
462.00	121.9	127.3						
480.00	121.0	126.3						
500.00	119.9	125.2						
520.00	118.3	123.6						
541.00	119.1	124.4						
551.50	256.0	267.3						
553.01	264.3	276.0						
555.01	272.5	284.5						
557.01	277.1	289.4						
559.01	281.5	294.0						
561.01	284.6	297.4						
563.01	287.7	300.4						

---------STRING NO. 1-------- -------STRING NO.

TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI	TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI	TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI
565.01	290.6	303.6						
567.01	292.6	305.5						
568.70	294.0	307.0						
577.01	300.4	313.6						
581.00	301.9	315.3						
585.00	303.4	316.9						
587.00	304.1	317.6						
589.00	304.9	318.4						
591.00	305.5	319.0						
593.00	306.6	320.1						
595.00	307.1	320.7						
597.00	307.5	321.1						
599.00	308.3	321.9						
601.00	309.0	322.6						
603.00	309.1	322.8						
605.00	310.1	323.8						
607.00	310.9	324.5						
609.00	311.4	325.1						
611.00	311.6	325.3						
613.80	312.2	326.0						
616.00	312.9	326.6						
625.00	314.6	328.4						
635.00	316.1	330.1						
645.00	318.1	332.2						
655.00	319.9	334.1						
665.00	321.1	335.3						
669.00	321.8	336.0						
670.00	321.7	335.9						
670.10	253.7	255.9						
670.20	234.7	250.3						
670.30	232.2	242.4						
670.40	226.9	237.0						
670.50	223.3	233.6						
670.60	220.9	230.7						
670.70	219.3	228.7						
670.80	216.6	225.5						
670.90	214.1	223.6						
671.00	212.7	222.1						
671.50	205.5	215.5						
672.00	201.1	210.3						
672.50	197.4	205.1						
673.00	193.0	201.5						
673.50	190.2	198.0						
674.00	186.9	195.2						
674.50	184.8	192.7						
675.00	182.5	190.6						
680.00	169.8	176.9						
685.00	161.3	165.4						
690.00	154.9	161.8						
695.00	151.0	157.0						
700.00	148.5	153.9						
705.00	144.0	150.3						
710.00	142.3	147.8						
715.00	140.4	145.6						
720.00	137.8	143.9						

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 ---------STRING NO. 1--------   ------STRING NO.
          PRESSURE  CORRECTED             PRESSURE  CORRECTED              PRESSURE  CORRECTED
   TIME   READING   PRESSURE      TIME    READING   PRESSURE       TIME    READING   PRESSURE
   HOURS    PSI       PSI         HOURS     PSI       PSI          HOURS     PSI       PSI

   730.00   135.2     141.1
   740.00   132.9     138.8
   750.00   130.9     136.7
   760.00   129.5     135.1
   770.00   126.2     131.7
   780.00   125.2     130.7
   790.00   134.4     140.3
   790.50   251.7     262.8
   791.00   256.3     267.5
   791.50   261.2     272.7
   792.00   264.5     276.0
   792.50   267.6     279.4
   793.00   270.7     282.7
   795.00   277.5     289.6
   800.00   289.8     302.4
   805.00   295.7     308.6
   810.00   299.5     312.6
   815.00   303.1     316.5
   820.00   305.1     318.6
   825.00   307.0     320.5
   830.00   309.3     323.0
   835.00   311.2     324.9
   840.00   312.3     326.1
   850.00   314.3     328.2
   860.00   315.9     329.6
   870.00   317.9     332.0
   880.00   320.2     334.3
   890.00   321.4     335.5
   910.00   323.5     337.6
   930.00   324.9     339.3
   951.00   326.5     341.0
   971.00   327.9     342.4
   991.00   329.6     344.1
  1011.00   330.8     345.4
  1031.00   332.0     346.6
  1051.00   332.4     347.1
  1071.00   333.1     347.9
  1091.00   333.5     348.3

  NUMBER OF POINTS=  156
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CF LEASE
RIO BLANCO CO., COLORADO
WELL NO. AT1A

P (CORRECTED) = 1.0500325 * P (READING) - 0.013
P (CORRECTED) = 1.0512476 * P (READING) - 0.010
P (CORRECTED) =

---------STRING NO. 1--------			------STRING NO. 3----------			------STRING NO		
TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI	TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI	TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI
0.60	430.6	452.4	0.10	338.0	355.3			
5.00	430.1	451.9	0.50	325.7	342.3			
10.00	430.0	451.8	1.00	318.4	334.7			
15.00	429.6	451.4	1.50	313.1	329.1			
20.00	429.6	451.3	2.00	308.6	324.4			
25.00	429.7	451.4	2.50	305.0	320.7			
35.00	429.3	451.1	3.00	302.1	317.5			
40.00	430.0	451.7	5.00	293.4	308.4			
45.00	429.9	451.7	10.00	283.9	298.5			
50.00	430.0	451.8	15.00	274.9	288.9			
60.00	429.6	451.3	20.00	269.9	283.8			
70.00	430.1	451.8	30.00	263.7	277.2			
80.00	429.4	451.1	40.00	259.4	272.7			
90.00	429.9	451.7	50.00	256.0	269.1			
100.00	429.8	451.5	60.00	256.0	269.1			
110.00	429.7	451.4	60.00	253.8	266.8			
120.00	429.8	451.6	70.00	252.7	265.7			
130.00	429.8	451.5	80.00	249.6	262.6			
140.00	430.0	451.7	90.00	247.3	260.0			
150.00	429.8	451.5	100.00	245.1	257.6			
160.00	429.8	451.5	110.00	244.1	256.6			
170.00	430.0	451.8	120.00	242.6	255.0			
180.00	429.9	451.6	130.00	241.4	253.7			
190.00	429.7	451.5	140.00	240.2	252.6			
200.00	429.5	451.3	150.00	239.3	251.6			
210.00	429.9	451.7	160.00	238.6	250.8			
220.00	429.6	451.4	170.00	237.7	249.8			
230.00	429.3	451.0	180.00	237.4	249.5			
240.00	429.1	450.8	190.00	236.4	248.5			
250.00	429.5	451.2	200.00	235.3	247.3			
260.00	429.6	451.4	210.00	235.6	247.7			
270.00	429.3	451.0	220.00	235.2	247.3			
280.00	429.4	451.1	230.00	234.6	246.6			
290.00	429.0	450.7	240.00	234.2	246.2			
300.00	429.5	451.2	250.00	233.6	245.5			
310.00	429.4	451.1	260.00	232.2	244.1			
320.00	429.7	451.5	270.00	231.1	243.0			
330.00	429.1	450.9	280.00	231.6	243.4			
340.00	429.7	451.4	290.00	231.9	243.8			
350.00	429.5	451.2	300.00	230.7	242.5			

STRING NO. 1			STRING NO. 3			STRING NO		
TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI	TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI	TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI
360.00	429.0	450.7	320.00	230.3	242.1			
370.00	429.4	451.1	340.00	229.1	240.8			
380.00	429.1	450.8	360.00	228.7	240.5			
390.00	428.9	450.6	380.00	228.1	239.8			
400.00	429.3	451.1	400.00	227.6	239.2			
410.00	429.1	450.8	420.00	227.2	238.9			
420.00	429.2	450.9	440.00	227.2	238.8			
439.00	428.5	450.3	460.00	225.4	236.9			
449.00	428.1	449.8	474.00	224.7	236.2			
459.00	428.2	449.9	484.00	224.2	235.7			
473.00	428.1	449.7	494.00	224.4	235.9			
483.00	428.7	450.4	504.00	223.7	235.2			
493.00	428.1	449.8	514.00	223.8	235.3			
513.00	435.1	457.1	524.00	223.7	235.2			
523.00	434.7	456.7	534.00	223.5	235.0			
533.00	434.9	456.9	544.00	223.3	234.7			
543.00	434.4	456.4	551.00	246.3	258.9			
551.50	434.4	456.4	552.54	254.8	267.8			
553.00	434.3	456.3	554.54	262.6	276.1			
557.00	434.4	456.4	556.64	267.7	281.4			
561.00	434.1	456.0	558.54	271.7	285.6			
565.00	434.3	456.2	560.54	274.9	289.0			
567.00	434.5	456.5	562.54	277.8	292.0			
568.70	434.3	456.3	564.54	280.5	294.8			
575.00	434.5	456.5	566.54	282.7	297.1			
577.00	434.3	456.3	568.40	284.2	298.7			
580.00	434.0	456.0	576.00	289.2	304.0			
585.00	433.7	455.7	577.00	289.8	304.6			
589.00	433.7	455.7	580.00	291.3	306.3			
593.00	433.9	455.9	583.20	292.9	307.9			
597.00	433.9	455.8	585.70	293.6	308.6			
601.00	433.8	455.7	587.00	294.1	309.2			
605.00	433.3	455.2	589.00	294.7	309.9			
609.00	433.1	455.0	591.00	295.4	310.5			
613.00	433.0	455.0	593.00	296.1	311.2			
617.00	433.5	455.4	595.00	296.1	311.5			
621.00	433.4	455.3	597.70	297.4	312.6			
625.00	433.0	454.9	599.00	298.1	313.3			
629.00	432.7	454.6	601.00	298.8	314.1			
633.00	432.9	454.8	603.00	299.6	314.7			
637.00	432.8	454.8	605.00	299.9	315.2			
641.00	432.5	454.4	607.00	300.5	315.9			
645.00	432.8	454.7	609.00	300.9	316.3			
657.00	434.7	456.7	611.00	301.2	316.7			
661.00	434.8	456.8	613.00	301.6	317.0			
665.00	434.6	456.6	615.00	302.0	317.5			
669.00	434.7	456.7	617.00	302.5	318.0			
670.00	434.6	456.6	619.00	303.2	318.6			
680.00	434.7	456.7	621.00	303.7	319.2			
690.00	434.5	456.4	623.00	304.6	320.1			
700.00	434.5	456.5	625.00	304.4	320.0			
710.00	434.5	456.5	627.00	304.8	320.4			
720.00	434.7	456.7	629.00	305.1	320.7			
730.00	434.2	456.2	631.00	305.2	320.9			
740.00	433.9	455.9	633.00	305.2	320.9			

STRING NO. 1			STRING NO. 3			STRING NO		
TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI	TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI	TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI
750.00	434.1	456.1	635.00	306.1	321.6			
760.00	434.5	456.5	637.00	306.5	322.2			
770.00	434.4	456.4	639.00	306.8	322.5			
780.00	433.9	455.9	641.00	307.0	322.7			
790.00	434.4	456.4	643.00	307.1	322.8			
795.00	434.5	456.5	645.00	307.5	323.2			
800.00	434.2	456.2	647.00	307.9	323.7			
805.00	434.4	456.3	649.00	308.3	324.0			
810.00	433.9	455.9	651.00	308.7	324.5			
815.00	434.0	455.9	653.00	308.9	324.6			
820.00	434.0	456.0	655.00	309.4	325.2			
825.00	433.9	455.8	657.00	309.7	325.6			
830.00	434.5	456.5	659.00	310.1	326.0			
835.00	434.5	456.5	661.00	310.2	326.1			
840.00	434.5	456.4	663.00	310.4	326.2			
850.00	434.3	456.3	665.00	310.6	326.7			
860.00	434.1	456.1	667.00	310.8	326.7			
870.00	434.1	456.1	669.00	311.1	327.0			
880.00	434.3	456.3	670.00	311.4	327.3			
890.00	434.3	456.3	670.50	294.0	309.0			
900.00	434.0	456.0	671.00	286.6	301.3			
910.00	434.0	456.0	671.50	282.2	296.5			
920.00	434.1	456.1	672.00	278.4	292.7			
930.00	434.0	456.0	672.50	275.4	289.5			
941.00	434.1	456.1	673.00	273.3	287.3			
951.00	433.6	455.5	675.00	265.8	279.4			
961.00	433.9	455.8	680.00	256.7	269.8			
971.00	433.8	455.7	685.00	251.5	264.4			
981.00	434.0	456.0	690.00	247.8	260.4			
992.50	433.9	455.9	695.00	245.0	257.5			
1002.50	434.1	456.1	700.00	243.1	255.5			
1012.50	433.4	455.4	705.00	241.0	253.4			
1022.50	434.3	456.3	710.00	239.6	251.8			
1032.50	434.4	456.3	715.00	238.1	250.3			
1042.50	434.0	456.0	720.00	237.0	249.1			
1052.50	433.8	455.7	730.00	235.2	247.2			
1062.50	433.8	455.8	740.00	234.1	246.1			
1072.50	433.8	455.8	750.00	232.6	244.5			
1082.50	433.9	455.9	760.00	231.3	243.1			
1092.50	433.7	455.6	770.00	230.5	242.3			
1102.50	433.9	455.9	780.00	229.5	241.2			
1112.50	433.5	455.5	790.00	228.8	240.5			
1122.50	433.9	455.8	790.50	242.6	255.0			
1132.50	433.7	455.7	791.00	247.6	260.5			
1142.50	433.7	455.7	791.50	252.0	264.9			
1152.50	434.0	456.0	792.00	255.0	268.1			
1162.50	433.8	455.8	792.50	257.9	271.1			
0.0	0.0	0.0	793.00	260.4	273.8			
0.0	0.0	0.0	795.00	267.9	281.6			
0.0	0.0	0.0	800.00	279.3	293.6			
0.0	0.0	0.0	805.00	285.7	300.3			
0.0	0.0	0.0	810.00	290.0	304.9			
0.0	0.0	0.0	815.00	292.9	307.9			
0.0	0.0	0.0	820.00	295.2	310.3			
0.0	0.0	0.0	825.00	296.6	311.7			

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---------STRING NO. 1--------   ------STRING NO.  3---------   ------STRING NO
        PRESSURE  CORRECTED               PRESSURE  CORRECTED              PRESSURE  CORRECTED
  TIME   READING  PRESSURE       TIME     READING   PRESSURE      TIME     READING   PRESSURE
  HOURS    PSI      PSI          HOURS      PSI       PSI         HOURS      PSI       PSI

   0.0     0.0      0.0         830.00     298.7     314.0
   0.0     0.0      0.0         835.00     300.3     315.7
   0.0     0.0      0.0         840.00     301.9     317.4
   0.0     0.0      0.0         850.00     304.1     319.7
   0.0     0.0      0.0         860.00     305.7     321.3
   0.0     0.0      0.0         870.00     307.4     323.1
   0.0     0.0      0.0         880.00     309.1     325.0
   0.0     0.0      0.0         890.00     310.6     326.5
   0.0     0.0      0.0         900.00     311.9     327.9
   0.0     0.0      0.0         910.00     313.1     329.1
   0.0     0.0      0.0         920.00     314.0     330.1
   0.0     0.0      0.0         930.00     314.6     330.8
   0.0     0.0      0.0         943.50     315.9     332.0
   0.0     0.0      0.0         953.50     316.5     332.7
   0.0     0.0      0.0         963.50     317.2     333.5
   0.0     0.0      0.0         973.50     317.6     334.0
   0.0     0.0      0.0         983.50     318.5     334.8
   0.0     0.0      0.0         993.50     319.1     335.4
   0.0     0.0      0.0        1013.50     320.1     336.5
   0.0     0.0      0.0        1033.50     321.0     337.4
   0.0     0.0      0.0        1053.50     321.9     338.4
   0.0     0.0      0.0        1073.50     322.6     339.3
   0.0     0.0      0.0        1093.50     323.5     340.1
   0.0     0.0      0.0        1113.50     324.1     340.7
   0.0     0.0      0.0        1133.50     324.9     341.5
   0.0     0.0      0.0        1153.50     325.5     342.2

NUMBER OF POINTS=  142        176
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CE LEASE
RIO BLANCO CO., COLORADO
WELL NO. AT1B

P (CORRECTED) = 1.0392427 * P (READING) - 0.006
P (CORRECTED) =

--------STRING NO.	3--------		------STRING NO.					
TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI	TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI	TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI
0.01	302.9	314.8						
1.00	281.3	292.3						
2.00	272.9	283.5						
3.00	266.5	276.9						
4.00	262.5	272.9						
5.00	255.3	265.4						
10.00	248.1	257.9						
20.00	232.7	241.8						
30.00	225.8	234.6						
40.00	221.3	230.0						
50.00	217.9	226.5						
60.00	215.0	223.4						
70.00	214.0	222.4						
80.00	210.5	218.8						
90.00	209.1	217.3						
100.00	208.1	216.3						
120.00	205.4	213.4						
140.00	203.0	211.0						
160.00	201.4	209.3						
180.00	200.8	208.7						
200.00	198.7	206.5						
221.00	194.9	202.5						
241.00	194.2	201.8						
261.00	192.5	200.0						
281.00	191.9	199.4						
303.00	190.3	197.8						
320.00	190.4	197.9						
341.50	188.7	196.1						
361.00	187.5	194.9						
381.00	188.4	195.8						
401.00	187.7	195.1						
421.00	187.5	194.9						
440.50	187.2	194.5						
462.70	186.4	193.7						
485.00	186.3	193.6						
499.00	185.2	192.5						
523.00	184.7	191.9						
535.00	184.3	191.5						
551.50	213.4	221.8						
553.02	216.7	225.2						

STRING NO. 5			STRING NO.					
TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI	TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI	TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI
555.02	224.4	233.2						
557.02	228.5	237.5						
559.02	232.3	241.4						
561.02	235.6	245.0						
565.02	239.9	249.3						
568.72	243.5	253.0						
577.00	249.9	259.6						
581.00	251.4	261.3						
585.00	253.4	263.3						
589.00	254.9	264.8						
593.00	256.1	266.2						
597.00	257.6	267.7						
601.00	259.3	269.5						
605.00	260.2	270.4						
609.00	261.1	271.4						
613.00	262.6	272.9						
617.00	263.1	273.4						
621.00	263.8	274.2						
625.00	264.4	274.6						
629.00	265.1	275.5						
633.00	265.9	276.3						
637.00	266.4	276.8						
641.00	267.2	277.7						
645.00	267.8	278.3						
649.00	268.6	279.2						
653.00	269.1	279.6						
657.00	269.5	280.0						
661.00	269.9	280.4						
665.00	270.7	281.3						
669.00	271.1	281.7						
670.00	271.1	281.8						
670.50	258.5	268.8						
671.00	250.7	260.5						
671.50	244.4	254.0						
672.00	240.2	249.6						
672.50	236.5	245.9						
673.00	233.8	243.0						
675.00	225.5	234.5						
680.00	215.2	223.7						
685.00	210.0	218.2						
690.00	206.4	214.6						
695.00	203.6	211.6						
700.00	201.2	209.1						
705.00	199.6	207.6						
710.00	198.4	206.2						
715.00	197.0	204.7						
720.00	196.0	203.7						
730.00	194.2	201.6						
740.00	192.6	200.2						
750.00	191.3	198.8						
760.00	190.2	197.5						
770.00	189.8	197.2						
780.00	189.5	195.7						
790.00	188.4	195.2						
790.50	198.1	205.8						

----------STRING NO.	5--------		------STRING NO.					
TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI	TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI	TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI
791.00	205.1	215.1						
791.50	209.5	217.7						
792.00	213.4	221.6						
792.50	216.1	224.5						
793.00	218.7	227.3						
793.50	221.1	229.8						
794.00	223.0	231.8						
795.00	226.2	235.1						
800.00	237.8	247.1						
805.00	244.6	254.2						
810.00	248.6	259.4						
815.00	252.1	262.0						
820.00	254.7	264.6						
825.00	256.6	266.7						
830.00	258.5	268.6						
835.00	260.6	270.8						
840.00	262.2	272.5						
850.00	264.3	274.7						
860.00	266.1	276.5						
870.00	267.8	278.3						
880.00	269.4	279.9						
890.00	270.7	281.4						
910.00	272.5	283.2						
930.00	274.2	285.0						
951.00	275.9	286.7						
971.00	275.6	286.4						
991.00	278.9	289.8						
1011.00	280.1	291.1						
1031.00	282.0	293.1						
1051.00	279.1	290.1						
1071.00	278.9	289.5						
1091.00	280.6	291.6						
1111.00	281.4	292.4						
1131.00	285.7	296.9						
1151.00	286.3	297.5						
1171.00	282.7	293.5						
0.0	0.0	0.0						
0.0	0.0	0.0						
0.0	0.0	0.0						
0.0	0.0	0.0						
0.0	0.0	0.0						
0.0	0.0	0.0						
0.0	0.0	0.0						
0.0	0.0	0.0						
0.0	0.0	0.0						
0.0	0.0	0.0						
0.0	0.0	0.0						
0.0	0.0	0.0						
0.0	0.0	0.0						
0.0	0.0	0.0						
0.0	0.0	0.0						
0.0	0.0	0.0						
0.0	0.0	0.0						
0.0	0.0	0.0						
0.0	0.0	0.0						

NUMBER OF POINTS= 131

CB LEASE
RIO BLANCO CO., COLORADO
WELL NO. ATIC

P (CORRECTED) = 1.0547455 * P (READING) - 0.017
P (CORRECTED) = 1.0516342 * P (READING) - 0.017
P (CORRECTED) = 1.0392427 * P (READING) - 0.008

STRING NO. 1			STRING NO. 2			STRING NO. 3		
TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI	TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI	TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI
0.15	473.7	499.6	0.40	435.2	457.5	0.0	305.6	317.6
5.55	473.0	498.9	5.75	435.1	457.4	1.00	274.6	285.4
10.35	472.8	498.7	10.55	435.1	457.3	2.00	263.6	273.9
19.95	472.8	498.7	20.15	435.2	457.5	3.00	256.4	266.5
30.20	472.9	498.8	30.40	435.4	457.7	4.00	250.5	260.3
40.95	472.9	498.8	39.95	435.4	457.7	5.00	246.1	255.7
49.95	473.1	499.0	50.15	435.7	458.0	10.00	236.2	245.5
60.20	472.9	498.8	60.40	435.6	457.9	20.00	219.3	227.9
69.50	473.0	498.9	70.00	435.8	458.1	30.00	211.9	220.2
80.00	473.9	499.8	80.20	435.9	458.2	40.00	207.9	216.1
90.00	473.1	498.9	90.35	436.0	458.3	50.00	202.2	210.1
100.40	473.1	499.0	100.00	436.1	458.5	60.00	199.7	207.5
110.00	473.1	499.0	110.50	436.1	458.5	70.00	196.2	203.9
120.75	473.1	499.0	120.95	436.3	458.6	80.00	194.5	202.3
130.40	473.1	499.0	130.00	436.2	458.5	90.00	192.0	199.5
140.00	473.1	499.0	140.00	436.2	458.5	100.00	190.2	197.6
151.35	473.1	499.0	151.55	436.2	458.5	110.00	189.0	196.4
161.45	473.0	498.9	161.65	436.5	458.9	120.00	187.3	194.7
170.55	473.0	498.9	170.65	436.3	458.6	130.00	185.9	193.2
190.00	473.1	499.0	190.00	436.5	458.9	140.00	184.6	192.0
200.00	473.0	498.9	200.00	436.4	458.8	150.00	183.7	190.9
212.00	472.9	498.7	210.00	436.4	458.8	160.30	183.0	190.2
220.00	472.9	498.7	219.00	436.3	458.6	170.00	181.5	[illegible]
230.90	472.9	498.7	220.60	436.3	458.6	180.00	181.6	188.7
241.70	473.0	498.9	231.00	436.4	458.8	190.00	180.6	187.7
252.00	472.9	498.8	242.30	436.4	458.8	200.00	179.1	186.1
260.00	472.8	498.7	252.00	436.5	458.9	220.00	177.2	184.2
270.00	472.8	498.7	261.00	436.4	458.8	240.00	176.7	183.7
280.00	472.8	498.7	270.70	436.4	458.7	260.00	174.6	181.5
290.90	472.8	498.7	280.00	436.5	458.8	281.00	173.5	180.3
300.00	472.8	498.7	291.00	436.4	458.8	299.00	173.1	179.9
310.70	472.7	498.6	300.00	436.5	458.9	320.00	172.6	179.6
330.00	472.8	498.7	310.90	436.5	458.9	341.50	171.1	177.8
341.00	472.7	498.6	330.50	436.6	458.9	362.00	170.2	176.9
350.00	472.7	498.5	341.50	436.5	458.9	382.00	170.7	177.4
362.00	472.6	498.6	350.00	436.5	458.9	402.00	169.2	175.8
370.00	472.7	498.6	362.00	436.7	459.1	422.00	168.5	175.1
382.00	472.5	498.3	370.00	436.6	459.0	442.00	167.6	174.2
390.00	472.5	498.4	382.00	436.5	458.9	462.00	166.4	172.9
402.00	472.5	498.3	390.00	436.5	458.9	480.00	165.8	172.3

STRING NO. 1			STRING NO. 2			STRING NO. 3		
TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI	TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI	TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI
410.00	472.5	498.5	402.00	436.6	458.9	500.00	164.4	170.8
422.00	472.4	495.3	410.00	436.7	459.1	520.00	163.3	169.7
430.00	472.4	498.2	422.50	436.6	458.9	540.50	163.0	170.1
442.00	472.3	498.2	430.00	436.6	458.9	542.50	163.6	170.0
450.50	472.3	498.2	442.00	436.7	459.0	551.50	205.1	213.1
462.50	472.3	498.2	450.00	436.6	459.0	553.00	214.6	223.0
469.00	471.7	497.6	462.75	436.6	459.0	555.00	222.5	231.3
481.00	471.7	497.5	469.00	436.0	458.4	561.00	235.2	244.4
501.00	472.0	497.[illegible]	481.70	436.2	458.5	565.00	240.5	249.9
521.00	474.8	500.7	501.00	436.0	458.3	571.00	244.0	253.6
542.00	475.8	501.6	521.00	436.1	458.5	581.00	251.7	261.6
553.00	475.6	501.7	542.50	437.0	459.3	591.00	255.7	265.8
560.00	476.[illegible]	502.0	554.00	437.2	459.6	601.00	259.1	269.2
568.20	476.0	502.1	561.00	437.0	459.4	611.00	261.2	271.5
581.00	475.7	501.7	565.40	437.0	459.4	621.00	263.7	274.0
589.00	475.4	501.4	568.40	437.0	459.4	631.00	265.5	275.9
601.00	475.5	501.6	581.50	436.7	459.0	641.00	267.2	277.7
609.50	475.2	501.2	589.30	436.4	458.8	651.00	268.9	279.4
621.00	475.2	501.2	601.35	436.7	459.1	661.00	270.1	280.7
632.50	475.0	500.9	609.75	436.3	458.7	669.00	271.1	281.6
639.00	474.6	500.6	621.00	435.5	458.8	670.00	271.4	282.1
652.00	474.7	500.7	632.50	435.4	458.7	670.50	248.5	258.3
660.00	474.5	500.6	640.00	435.1	458.5	671.00	240.1	249.5
669.00	474.5	500.4	652.50	436.3	458.7	671.50	234.4	243.5
670.00	474.1	500.1	659.75	436.3	458.6	672.00	229.8	238.8
675.00	474.1	500.0	669.00	436.2	458.6	672.50	226.3	235.2
680.00	473.[illegible]	499.[illegible]	670.00	435.1	458.4	673.00	223.1	231.9
685.00	473.1	499.0	675.00	436.2	458.6	675.00	214.4	222.8
690.00	473.5	499.[illegible]	680.00	436.1	458.4	680.00	202.[illegible]	210.[illegible]
695.00	473.5	499.7	685.00	435.9	458.2	685.00	196.5	204.3
700.00	473.5	499.4	690.00	436.2	458.5	690.00	192.1	199.7
705.00	473.7	499.6	695.00	436.2	458.5	695.00	189.0	196.4
710.00	473.7	499.6	701.00	435.2	458.0	700.00	186.4	193.7
715.00	473.1	499.0	705.00	436.4	458.7	705.00	184.1	191.3
720.00	473.[illegible]	499.7	71[illegible].00	435.2	458.[illegible]	710.00	182.4	189.5
730.00	473.1	499.0	717.00	436.1	458.4	715.00	180.7	187.8
740.00	473.[illegible]	499.6	720.00	435.5	458.9	720.00	179.0	186.1
750.00	473.5	499.7	730.00	436.5	452.5	730.00	177.4	184.3
760.00	473.1	499.0	740.00	436.5	458.6	740.00	175.6	182.5
770.00	473.6	499.6	750.00	436.5	456.8	750.00	173.7	180.6
780.00	473.5	499.[illegible]	760.00	432.9	455.[illegible]	760.00	172.5	179.3
790.00	472.9	498.8	770.00	436.4	458.7	770.00	171.0	177.7
795.00	474.0	499.9	780.00	436.3	458.7	780.00	170.0	176.7
800.00	474.0	500.0	790.00	436.4	458.7	790.00	169.3	176.0
805.00	474.0	499.9	795.00	436.7	459.0	790.50	196.1	203.9
810.00	474.1	500.0	800.00	436.4	458.7	791.00	204.5	212.5
815.00	473.9	499.[illegible]	805.00	436.6	459.0	791.50	208.9	216.1
821.00	473.5	499.7	810.00	435.5	458.0	792.00	214.0	222.4
825.00	473.5	499.5	815.00	435.4	458.6	792.50	217.4	225.9
830.00	473.5	499.6	820.00	435.4	458.8	793.00	220.1	228.7
835.00	473.5	499.2	825.00	435.1	458.4	795.00	226.1	237.0
840.00	473.8	499.7	830.00	435.2	458.5	800.00	239.4	248.6
850.00	473.4	499.3	835.00	436.4	458.7	805.00	246.[illegible]	25[illegible]
860.00	473.2	499.1	840.00	435.8	458.7	810.00	244.9	254.7
870.00	473.1	498.9	850.00	436.4	458.7	815.00	252.9	262.[illegible]

---------STRING NO. 1---------			------STRING NO. 2----------			------STRING NO 3----------		
TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI	TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI	TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI
880.00	472.9	498.8	860.00	436.2	458.5	820.00	255.4	265.4
890.00	472.9	498.8	870.00	436.0	458.3	825.00	257.2	267.5
910.00	472.7	498.6	880.00	436.2	458.5	830.00	259.1	269.3
930.00	472.9	498.7	890.00	436.2	458.5	835.00	260.5	270.8
951.00	472.7	498.6	910.00	436.3	458.6	840.00	261.9	272.1
971.00	472.1	498.0	930.00	436.2	458.5	850.00	264.2	274.6
991.00	472.5	498.4	951.00	436.1	458.4	860.00	266.5	276.8
1011.00	471.9	497.7	991.00	436.3	458.6	870.00	267.8	278.3
1031.00	471.8	497.6	1011.00	436.0	458.3	890.00	270.9	281.5
1051.00	471.8	497.7	1051.00	436.0	458.4	910.00	273.2	283.9
1071.00	471.3	497.1	1071.00	435.8	458.1	930.00	275.2	285.9
1091.00	471.2	497.0	1091.00	430.8	452.8	950.00	276.9	287.6
1111.00	471.4	497.2	1111.00	436.0	458.3	970.00	278.1	289.0
1131.00	471.1	496.9	1131.00	436.0	458.3	990.00	279.4	290.4
1151.00	471.0	496.8	1151.00	432.7	454.9	1010.00	280.4	291.4
1171.00	471.0	496.8	1171.00	436.0	458.3	1030.00	281.3	292.3
1193.00	470.8	496.5	1193.00	435.9	458.2	1050.00	282.1	293.2
1233.00	474.4	500.3	1213.00	433.0	455.1	1070.00	283.0	294.1
1253.00	474.6	500.6	1233.00	431.8	453.9	1090.00	283.8	294.9
1273.00	474.4	500.3	1253.00	436.1	458.4	1110.00	284.6	295.7
1293.00	474.0	499.9	1273.00	436.1	458.4	1130.00	285.4	296.5
1316.00	473.5	499.4	1293.00	432.3	454.4	1150.00	286.1	297.3
1336.00	473.8	499.7	1316.00	431.9	454.0	1170.00	286.8	297.9
0.0	0.0	0.0	1336.00	427.5	449.4	1190.00	287.2	298.5
0.0	0.0	0.0	0.0	0.0	0.0	1210.00	287.7	299.0
0.0	0.0	0.0	0.0	0.0	0.0	1230.00	288.4	299.7
0.0	0.0	0.0	0.0	0.0	0.0	1250.00	288.9	300.2
0.0	0.0	0.0	0.0	0.0	0.0	1270.00	289.5	300.8
0.0	0.0	0.0	0.0	0.0	0.0	1290.00	289.8	301.2
0.0	0.0	0.0	0.0	0.0	0.0	1310.00	270.9	281.5
0.0	0.0	0.0	0.0	0.0	0.0	1330.00	283.8	294.9
0.0	0.0	0.0	0.0	0.0	0.0	1350.00	286.7	298.0
0.0	0.0	0.0	0.0	0.0	0.0	1370.00	288.2	299.5
0.0	0.0	0.0	0.0	0.0	0.0	1390.00	289.1	300.5
0.0	0.0	0.0	0.0	0.0	0.0	1410.00	290.0	301.4
0.0	0.0	0.0	0.0	0.0	0.0	1430.00	290.5	301.9

NUMBER OF POINTS= 118 119 131

CB LEASE
RIO BLANCO CO., COLORADO
WELL NO. AT10

P (CORRECTED) = 1.0512352 * P (READING) - 0.017
P (CORRECTED) = 1.0396194 * P (READING) - 0.014
P (CORRECTED) =

---------STRING NO.	1--------		------STRING NO.	2----------		------STRING NO		
TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI	TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI	TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI
0.01	432.8	455.0	0.01	307.4	319.6			
5.00	432.7	454.8	1.00	288.9	300.4			
11.00	432.4	454.5	2.00	278.5	289.5			
15.75	432.5	454.6	3.00	270.8	281.5			
20.55	432.6	454.7	4.00	264.7	275.1			
30.20	432.9	455.1	6.00	255.8	266.0			
39.45	432.7	454.8	8.00	251.4	261.4			
50.95	433.3	455.5	20.00	231.9	241.1			
60.53	433.1	455.3	30.00	224.7	233.6			
70.78	433.4	455.6	40.00	219.7	228.4			
80.75	433.2	455.4	50.00	216.1	224.6			
90.28	433.5	455.7	60.00	213.4	221.8			
100.93	433.5	455.7	70.00	212.2	220.6			
110.00	433.6	455.8	80.00	208.1	216.3			
120.58	433.7	455.9	90.00	206.3	214.5			
130.90	433.6	455.9	100.00	204.6	212.7			
140.80	433.7	455.9	110.00	203.9	211.9			
150.70	433.7	455.9	120.00	201.8	209.7			
160.50	433.5	455.7	130.00	200.4	208.3			
169.30	433.8	456.0	140.00	199.2	207.0			
179.30	433.9	456.1	150.00	198.1	206.0			
191.00	434.0	456.2	159.50	197.6	205.4			
201.00	433.9	456.1	170.70	196.4	204.1			
211.00	433.9	456.1	180.00	195.8	203.5			
220.00	434.0	456.2	190.70	195.2	202.9			
231.70	434.2	456.4	200.00	193.6	201.3			
241.00	434.3	456.5	220.00	192.1	199.7			
250.75	434.2	456.4	240.00	190.5	198.0			
262.00	434.1	456.3	260.45	189.9	197.5			
273.00	434.1	456.3	279.50	188.7	196.2			
281.00	434.0	456.2	290.00	188.4	195.8			
291.00	434.0	456.2	310.00	188.1	195.5			
301.50	434.1	456.3	342.00	186.4	193.7			
312.00	434.2	456.5	362.00	185.5	192.8			
320.00	434.2	456.5	382.00	185.8	193.1			
330.00	434.1	456.4	402.00	184.5	191.8			
342.00	434.3	456.5	422.00	183.6	190.9			
350.00	434.3	456.5	441.50	183.0	190.2			
362.00	434.1	456.3	461.50	181.7	188.9			
370.00	434.3	456.6	482.00	181.0	188.1			

-------STRING NO. 1-------			------STRING NO. 2----------			------STRING NO		
TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI	TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI	TIME HOURS	PRESSURE READING PSI	CORRECTED PRESSURE PSI
382.00	434.1	456.3	496.00	179.7	186.8			
390.00	434.5	456.7	520.00	179.3	186.3			
402.00	434.4	456.6	536.00	179.2	186.2			
410.00	434.1	456.3	551.50	209.3	217.6			
422.00	434.2	456.4	553.02	219.6	228.3			
430.00	434.2	456.5	555.00	227.6	236.7			
442.50	434.0	456.3	560.00	238.1	247.5			
450.50	433.9	456.2	565.00	245.0	254.7			
462.50	434.0	456.2	580.00	255.2	265.3			
472.80	434.2	456.4	585.00	257.2	267.4			
480.50	434.4	456.6	590.00	259.0	269.2			
493.00	434.1	456.3	595.00	260.8	271.1			
500.50	434.1	456.3	600.00	262.6	273.0			
521.00	436.4	458.6	605.00	263.9	274.4			
533.00	436.3	458.7	610.00	265.0	275.5			
541.00	436.3	458.7	615.00	266.1	276.6			
551.50	436.5	458.9	620.00	267.2	277.8			
553.00	436.5	458.9	625.00	268.3	278.9			
555.00	436.8	459.2	630.00	269.1	279.8			
560.00	436.7	459.0	635.00	270.0	280.7			
565.00	436.7	459.1	640.00	270.4	281.1			
580.00	436.6	458.9	645.00	271.4	282.2			
585.00	436.3	458.8	650.00	272.5	283.3			
590.00	436.4	458.8	655.00	273.2	284.0			
595.00	436.5	458.9	660.00	273.8	284.6			
600.00	436.8	459.2	665.00	274.3	285.2			
605.00	436.5	459.0	669.00	275.0	285.9			
610.00	436.3	458.7	670.00	275.1	286.0			
615.00	436.3	458.7	675.00	229.2	238.2			
620.00	436.5	458.8	680.00	217.3	225.9			
625.00	436.6	459.0	685.00	210.6	218.9			
630.00	435.5	458.4	690.00	206.7	214.9			
635.00	436.4	458.8	695.00	203.6	211.6			
640.00	436.2	458.5	700.00	201.0	208.9			
645.00	436.3	458.7	705.00	199.0	206.9			
650.00	436.4	458.8	710.00	197.1	204.9			
655.00	436.4	458.7	715.00	195.9	203.6			
660.00	436.2	458.6	720.00	194.5	202.2			
665.00	436.2	458.6	730.00	192.2	199.8			
669.00	436.3	458.7	740.00	190.5	197.9			
679.00	436.4	458.7	750.00	189.0	196.5			
680.00	436.1	458.4	760.00	187.9	195.3			
690.00	436.1	458.4	770.00	186.7	194.1			
700.00	436.2	458.6	780.00	185.6	192.9			
710.00	436.0	458.3	790.00	184.8	192.1			
720.00	435.9	458.2	790.50	199.8	207.7			
730.00	436.1	458.4	791.00	208.5	216.8			
740.00	435.9	458.2	792.00	216.1	224.7			
750.00	436.3	458.7	793.00	224.9	233.8			
760.00	436.0	458.4	793.50	227.2	236.2			
770.00	436.2	458.5	794.00	229.2	238.3			
780.00	436.0	458.4	794.50	231.1	240.2			
790.00	436.1	458.4	795.00	232.7	241.9			
800.00	436.3	458.6	800.00	243.9	253.5			
810.00	436.2	458.6	805.00	250.2	260.1			

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--------STRING NO.  1-------  ------STRING NO.  2---------  ------STRING NO
          PRESSURE  CORRECTED            PRESSURE  CORRECTED              PRESSURE  CORRECTE
  TIME    READING   PRESSURE     TIME    READING   PRESSURE      TIME     READING   PRESSURE
  HOURS     PSI       PSI        HOURS     PSI       PSI         HOURS      PSI       PSI

  820.00    436.2     458.6     810.00    254.0     264.1
  830.00    436.3     458.6     815.00    257.0     267.2
  840.00    436.3     458.5     820.00    259.4     269.6
  850.00    436.3     458.6     825.00    261.1     271.4
  860.00    436.1     458.4     830.00    263.0     273.4
  870.00    435.8     458.1     835.00    264.6     275.1
  880.00    436.1     458.4     840.00    266.1     276.6
  890.00    436.1     458.4     850.00    268.3     278.9
  900.00    436.1     458.4     860.00    270.1     280.8
  910.00    436.1     458.5     870.00    271.6     282.3
  920.00    436.1     458.4     880.00    273.5     284.2
  930.00    436.0     458.4     890.00    274.9     285.8
  942.00    436.3     458.6     900.00    276.0     287.0
  952.00    436.0     458.4     910.00    277.1     288.1
  962.00    436.1     458.5     920.00    278.0     289.0
  972.00    436.1     458.4     930.00    278.8     289.9
  982.00    436.2     458.5     941.00    279.9     290.9
  992.00    436.1     458.4     951.00    280.4     291.5
 1002.00    436.1     458.5     961.00    281.4     292.5
 1012.00    436.0     458.3     971.00    282.0     293.2
 1022.00    436.0     458.4     981.00    282.6     293.8
 1032.00    436.1     458.4     991.00    283.3     294.5
 1042.00    435.9     458.2    1001.00    283.9     295.2
 1052.00    435.9     458.2    1011.00    284.2     295.5
 1[illegible].00    435.7     458.0    1021.00    284.8     296.0
 [illegible]2.00    435.7     458.0    1031.00    285.4     296.7
 1082.00    435.9     458.2    1041.00    285.7     297.0
 1092.00    435.7     458.0    1051.00    286.1     297.4
 1102.00    435.9     458.2    1061.00    286.7     298.0
 1112.00    435.7     458.0    1071.00    286.8     298.1
 1122.00    435.8     458.1    1081.00    287.5     298.9
 1132.00    435.8     458.1    1091.00    287.6     298.9
 1142.00    435.7     458.0    1101.00    288.1     299.5
 1152.00    435.9     458.3    1111.00    288.3     299.7
 1162.00    435.7     458.0    1121.00    288.7     300.1
 1172.00    435.8     458.1    1131.00    289.2     300.6
 1184.00    435.7     458.0    1142.00    289.3     300.7
 1194.00    435.7     458.0    1152.00    289.5     301.3
     0.0      0.0       0.0    1162.00    289.9     301.4
     0.0      0.0       0.0    1172.00    290.2     301.7
     0.0      0.0       0.0    1184.00    290.6     302.0
     0.0      0.0       0.0    1194.00    290.9     302.4
     0.0      0.0       0.0       0.0       0.0       0.0
     0.0      0.0       0.0       0.0       0.0       0.0
     0.0      0.0       0.0       0.0       0.0       0.0
     0.0      0.0       0.0       0.0       0.0       0.0
     0.0      0.0       0.0       0.0       0.0       0.0
     0.0      0.0       0.0       0.0       0.0       0.0

NUMBER OF POINTS=  133      137
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